

N62470-01-B-5574
NAVFAC
SPECIFICATION
NO. 05-01-5574

AMENDMENT NO. 0001

IMPORTANT

This amendment should be acknowledged when your bid is submitted. Failure to acknowledge the amendment may constitute grounds for rejection of the bid. If your bid has been submitted prior to the receipt of this amendment, acknowledgment should be made by telegram, which should state whether the price contained in your sealed bid is to remain unchanged, is to be decreased by an amount, or is to be increased by amount. The acknowledgment must be received prior to bid opening time.

LANTDIV NORVA 3-4280/6 (Rev. 9/81)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE		OF PAGES	
						1		3	
2. AMENDMENT/MODIFICATION NO. 0001			3. EFFECTIVE DATE 04 Aug 2003		4. REQUISITION/PURCHASE REQ. NO.		PROJECT NO. (If applicable)		
6. ISSUED BY			Code N62470/R44:III		7. ADMINISTERED BY (If other than item 6.)			Code	
OFFICER IN CHARGE OF CONSTRUCTION BUILDING 491, NORFOLK NAVAL SHIPYARD PORTSMOUTH, VIRGINIA 23709-5000									
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)					<input type="checkbox"/>		9A. AMENDMENT OF SOLICITATION NO. N62470-01-B-5574		
					<input type="checkbox"/>		9B. DATED 21 July 2003		
					<input checked="" type="checkbox"/>		10A. MODIFICATION OF CONTRACT/ORDER NO.		
							10B. DATED (SEE ITEM 13)		
CODE			FACILITY CODE						
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS									
<p>X The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers is extended X is not extended . Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.</p>									
12. ACCOUNTING AND APPROPRIATION DATA (if required)									
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.									
<input type="checkbox"/> A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14. ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.									
<input type="checkbox"/> B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATION CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103 (b).									
<input type="checkbox"/> C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:									
<input type="checkbox"/> D. OTHER: (specify type of modification and authority)									
E. IMPORTANT: Contractor <input type="checkbox"/> is not is required to sign this document and return copies to the issuing office.									
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) <div style="text-align: center;"> DEMOLITION OF PIER 12 AT ST. HELENA NORFOLK, VIRGINIA </div> <div style="text-align: center;"> <u>SEE CONTINUATION SHEETS</u> </div>									
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.									
15A. NAME AND TITLE OF SIGNER (Type or print)					16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)				
15B. CONTRACTOR/OFFEROR (Same as Item 8)			15C. DATE SIGNED		16B. UNITED STATES OF AMERICA			16C. DATE SIGNED	
_____ (Signature of person authorized to sign)					BY _____ (Signature of Contracting Officer)				

CONTINUATION SHEET

1. DOCUMENT 00120 SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

1.2 BID NOTES

BID NOTE a.

DELETE the first sentence of this paragraph in its entirety, and **INSERT** the following sentence in lieu thereof:

"Award will be made on the total lump sum of Bid Item 0001AA and the sum of the extensions under Bid Items 0001AB, 0001AC, 0001AD and 0001AE."

2. SECTION 00700 CONTRACT CLAUSES

ADD Far Clause 52.219-9 Small Business Subcontracting Plan (Jan 2002). A copy of Far Clause 52.219-9 is attached hereto and is hereby made a part of the specification.

3. **DELETE** the existing "Submittal Register" and **INSERT** the attached "Submittal Register" in lieu thereof.

4. **DELETE** the existing Specification Section "01140 WORK RESTRICTIONS" in its entirety and **INSERT** the attached new Specification Section "01140 WORK RESTRICTIONS".

5. **DELETE** the existing Specification Section "01150N SPECIAL PROJECT PROCEDURES" in its entirety and **INSERT** the attached new Specification Section "01150N SPECIAL PROJECT PROCEDURES".

6. **DELETE** the existing Specification Section "01320N CONSTRUCTION PROGRESS DOCUMENTATION" in its entirety and **INSERT** the attached new Specification Section "01320N CONSTRUCTION PROGRESS DOCUMENTATION".

7. **DELETE** the existing Specification Section "01450N QUALITY CONTROL" in its entirety and **INSERT** the attached new Specification Section "01450N QUALITY CONTROL".

8. **DELETE** the existing Specification Section "01525N SAFETY REQUIREMENTS" in its entirety and **INSERT** the attached new Specification Section "01525N SAFETY REQUIREMENTS".

9. **DELETE** the existing Specification Section "02461 WOOD MARINE PILES" in its entirety and **INSERT** the attached new Specification Section "02461 WOOD MARINE PILES".

10. TABLE OF CONTENTS

ADD the following to the Table of Contents:

Section 02510N WATER DISTRIBUTION

Section 02552N EXTERIOR SHALLOW TRENCH STEAM DISTRIBUTION

Sections 02510N and 02552N are attached hereto and hereby made a part of the specification.

11. **NAVFAC DRAWING NO. 4427599**

DELETE the existing NAVFAC DRAWING NO. 4427599 and **REPLACE IT WITH** the attached NAVFAC DRAWING NO. 4427599 dated 7/23/03 which is hereby made a part of the solicitation package.

52.219-9 Small Business Subcontracting Plan (Jan 2002)

(a) This clause does not apply to small business concerns.

(b) *Definitions.* As used in this clause-

"Commercial item" means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

"Commercial plan" means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (*e.g.*, division, plant, or product line).

"Individual contract plan" means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

"Master plan" means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

"Subcontract" means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) The offeror, upon request by the Contracting Officer, shall submit and negotiate a subcontracting plan, where applicable, that separately addresses subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business concerns, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate the subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror's subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The offeror shall include all

subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs.

(2) A statement of-

- (i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;
- (ii) Total dollars planned to be subcontracted to small business concerns;
- (iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;
- (iv) Total dollars planned to be subcontracted to service-disabled veteran-owned small business;
- (v) Total dollars planned to be subcontracted to HUBZone small business concerns;
- (vi) Total dollars planned to be subcontracted to small disadvantaged business concerns; and
- (vii) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to-

- (i) Small business concerns;
- (ii) Veteran-owned small business concerns;
- (iii) Service-disabled veteran-owned small business concerns;
- (iv) HUBZone small business concerns;
- (v) Small disadvantaged business concerns; and
- (vi) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (*e.g.*, existing company source lists, the Procurement Marketing and Access Network (PRO-Net) of the Small Business Administration (SBA), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in PRO-Net as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of PRO-Net as its source list does not relieve a firm of its responsibilities (*e.g.*, outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with-

- (i) Small business concerns;
- (ii) Veteran-owned small business concerns;
- (iii) Service-disabled veteran-owned small business concerns;
- (iv) HUBZone small business concerns;
- (v) Small disadvantaged business concerns; and
- (vi) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled "Utilization of Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$500,000 (\$1,000,000 for construction of any public facility) to adopt a subcontracting plan that complies with the requirements of this clause.

(10) Assurances that the offeror will-

- (i) Cooperate in any studies or surveys as may be required;
- (ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;
- (iii) Submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, in accordance with paragraph (j) of this clause. The reports shall provide information on subcontract awards to small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with the instructions on the forms or as provided in agency regulations.
- (iv) Ensure that its subcontractors agree to submit SF 294 and SF 295.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business

concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):

(i) Source lists (*e.g.*, PRO-Net), guides, and other data that identify small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than \$100,000, indicating-

(A) Whether small business concerns were solicited and, if not, why not;

(B) Whether veteran-owned small business concerns were solicited and, if not, why not;

(C) Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;

(D) Whether HUBZone small business concerns were solicited and, if not, why not;

(E) Whether small disadvantaged business concerns were solicited and, if not, why not;

(F) Whether women-owned small business concerns were solicited and, if not, why not; and

(G) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact-

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through-

(A) Workshops, seminars, training, etc.; and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small

business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owned small business, HUBZone small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided-

(1) The master plan has been approved;

(2) The offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer; and

(3) Goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Commercial plans are also preferred for subcontractors that provide commercial items under a prime contract, whether or not the prime contractor is supplying a commercial item.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) The failure of the Contractor or subcontractor to comply in good faith with-

(1) The clause of this contract entitled "Utilization Of Small Business Concerns;" or

(2) An approved plan required by this clause, shall be a material breach of the contract.

(j) The Contractor shall submit the following reports:

(1) *Standard Form 294, Subcontracting Report for Individual Contracts*. This report shall be submitted to the Contracting Officer semiannually and at contract completion. The

report covers subcontract award data related to this contract. This report is not required for commercial plans.

(2) *Standard Form 295, Summary Subcontract Report*. This report encompasses all of the contracts with the awarding agency. It must be submitted semi-annually for contracts with the Department of Defense and annually for contracts with civilian agencies. If the reporting activity is covered by a commercial plan, the reporting activity must report annually all subcontract awards under that plan. All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a breakout, in the Contractor's format, of subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

(End of clause)

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION						CONTRACTOR											
St. Helena, Demolition Of Pier 12																	
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	CLASSIFICATION GOVT OR A/E REVIEWER	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01150N	SD-01 Preconstruction Submittals														
			Watercraft list	3.1.1.1													
			Underwater Preconstruction Survey and Report														
			Above Water Pier Preconstruction Survey and Report														
			Asbestos Survey and Report														
			SD-02 Shop Drawings														
			Crane operating envelope (COE)														
			SD-07 Certificates														
			Crane operator's qualifications statement	3.2.1													
			Crane work plan	3.2.2													
		01200N	SD-01 Preconstruction Submittals														
			Schedule of prices	1.3	G												
		01310N	SD-01 Preconstruction Submittals														
			List of contact personnel	1.3.1	G												
			Insurance	1.2	G												
			Personnel list	1.3.4.1	G												
			Vehicle list	1.3.4.2	G												
			Qualifications of superintendent	1.4.1													
		01320N	SD-01 Preconstruction Submittals														
			Demolition and Construction schedule	1.2	G												
			Equipment delivery schedule	1.3	G												
		01321N	SD-01 Preconstruction Submittals														

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		01321N	Qualifications	1.5	G												
			Standard Activity Coding Dictionary	1.6.2.5													
			Preliminary Network Analysis Schedule	1.7.2	G												
			Network Analysis Schedule	1.7.3	G												
			Accepted Network Analysis Schedule	1.7.5	G												
			SD-07 Certificates														
			Monthly Network Analysis Updates	1.7.6	G												
		01330	SD-01 Preconstruction Submittals														
			Submittal register	1.5.1	G												
		01450N	SD-01 Preconstruction Submittals (QC) plan	1.6	G												
		01500N	SD-01 Preconstruction Submittals														
			Construction site plan	1.3	G												
			SD-03 Product Data														
			Backflow preventers														
			SD-06 Test Reports														
			Backflow Preventer Tests		G												
		01525N	SD-07 Certificates														
			Accident Prevention Plan (APP)	1.4.3.1	G												
			Activity Hazard Analysis (AHA)	1.4.3.2	G												
			Health and Safety Plan (HASP)	1.4.3.3	G												
			SD-11 Closeout Submittals														

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		01525N	Daily Confined Space Entry Permit	3.8													
			Reports	1.16													
			Crane Reports	1.4.4.1													
			Crane Critical Lift Plan	1.4.4.2													
			Certificate of Compliance	1.4.4.3													
		01561	SD-01 Preconstruction Submittals														
			Construction Sequence Schedule	1.4	G												
			Erosion Control Plan	1.5	G												
			Waterway Pollution Control Plan		G												
			SD-03 Product Data														
			Filter Barriers	2.1													
			Sediment Fence	2.2													
			Dust Suppressors	2.4													
			Filter Fabric	2.1.1.2													
			Sediment Turbidity Containment	2.3.2.3													
			Curtain Boom														
		01572N	SD-01 Preconstruction Submittals														
			Waste Management Plan	1.3.3	G												
		01575N	SD-01 Preconstruction Submittals														
			Environmental protection plan	1.9	G												
			SD-06 Test Reports														
			Laboratory analysis	1.4													
			Laboratory analysis	1.5.3													
			Laboratory analysis	3.6.2													
			SD-11 Closeout Submittals														

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		01575N	Preconstruction survey	1.5.1													
			Solid waste disposal permit	1.5.2													
			Waste determination documentation	1.5.3													
			Waste determination documentation	3.4.1													
			Disposal documentation for hazardous and regulated waste	1.5.4													
			Contractor 40 CFR employee training records	1.5.5													
			Regulatory notification	1.5.6													
			Solid waste disposal report	1.5.8													
			Contractor Hazardous Material Inventory Log	1.11	G												
		01770N	SD-11 Closeout Submittals														
			As-built drawings	1.3.1	G												
			Hazardous material reporting	1.2.1	G												
		02220	SD-07 Certificates														
			Demolition plan	1.10	G												
			Notifications	1.5.1	G												
			Submit proposed demolition and removal procedures to the Contracting Officer for approval before work is started.s		G												
			SD-11 Closeout Submittals														
			Receipts	1.5.2													

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		02301	SD-06 Test Reports														
			Fill	3.9.2													
			Backfill	3.9.2													
			Granular fill	3.9.2													
			Subsurface Drain	2.1.1.1													
			SD-07 Certificates														
			Dewatering system	1.7.1													
		02398	SD-02 Shop Drawings														
			timberwork	3.2.1													
			SD-06 Test Reports														
			Timber preservative inspection	1.4.2													
			Delivery inspection list	1.4.3													
			SD-07 Certificates														
			MSDS and CIS	1.4.1													
		02461	SD-03 Product Data														
			Piles	2.1													
			Hammer	3.1.1.2													
			Driving equipment	3.1.1.3													
			Driving helmet	3.1.1.3													
			Pile caps														
			SD-07 Certificates														
			MSDS and CIS	1.3.2													
			SD-11 Closeout Submittals														
			records	3.1.1.5													
		02510N	SD-03 Product Data														
			Piping Materials G														

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION						CONTRACTOR											
St. Helena, Demolition Of Pier 12																	
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		02510N	Water service line														
		02552N	SD-02 Shop Drawings														
			Piping system	1.2	G												
			SD-03 Product Data														
			Pipe G														
			SD-07 Certificates														
			Certification of welder's qualifications G														
		02821	SD-02 Shop Drawings														
			Post spacing	3.2.1													
			Location of corner, end, and pull posts														
			SD-03 Product Data														
			Chain-link fencing	2.1													
			Accessories	2.1.3													
			SD-06 Test Reports														
			Weight in grams ounces for zinc coating	1.4.1													
			SD-07 Certificates														
			Fabric	2.1.1													
			Posts	2.1.2													
			Braces	2.1.2													
			Framing														
			Rails	2.1.2													
			Tension wires	3.2.4													
			SD-08 Manufacturer's Instructions														

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION St. Helena, Demolition Of Pier 12						CONTRACTOR											
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	CLASSIFICATION GOVT OR A/E REVIEWER	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		02821	Fence	3.2													
		02951	SD-05 Design Data														
			Job mix formula	1.3.2													
			SD-07 Certificates														
			Stone Base Course	2.1.2													
		03311	SD-02 Shop Drawings														
			Reinforcing steel	1.6.2.1	G												
			Formwork	1.6.2.2	G												
			Construction joints	3.2.6	G												
			SD-03 Product Data														
			Materials for curing concrete	2.2.8	G												
			Joint sealants	2.2.9	G												
			Admixtures	1.6.4.6	G												
			Concrete bonding compound	2.2.10	G												
			Reinforcement supports	3.2.1	G												
			SD-05 Design Data														
			Mix Design	1.6.3.6	G												
			SD-06 Test Reports														
			Concrete mixture proportions	1.6.4.1	G												
			Fly ash	1.6.4.2													
			Natural pozzolan	1.6.4.2													
			Ground iron blast-furnace slag	1.6.4.3													
			Silica fume	1.6.4.4													
			Aggregates	1.6.4.5													
			Admixtures	1.6.4.6													
			Cement	1.6.4.7													

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION St. Helena, Demolition Of Pier 12						CONTRACTOR											
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION OR REFERENCE REVIEW NUMBER	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		03311	Water	1.6.4.8													
			SD-07 Certificates														
			Concrete placement and compaction	1.6.3.3													
			Quality assurance	1.6.3.4													
			Field testing technician and testing agency	1.6.3.5													
			Mixture designs	3.8.1	G												
		07920	SD-03 Product Data														
			Sealants	2.1													
			Joint Filler	2.2													
		13281	SD-03 Product Data														
			Local exhaust equipment	3.1.4	G												
			Vacuums	3.1.5	G												
			Respirators	3.1.1.1	G												
			Pressure differential automatic recording instrument	3.1.4	G												
			Amended water	1.2.2	G												
			Glovebags	3.1.7	G												
			Material Safety Data Sheets (MSDS) for all materials	1.3.8	G												
			Encapsulants	2.1	G												
			SD-06 Test Reports														
			Air sampling results	1.5.2	G												
			Pressure differential recordings for local exhaust system	1.5.3	G												

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION St. Helena, Demolition Of Pier 12						CONTRACTOR											
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION OR REFERENCE REVIEWER	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		13281	Asbestos disposal quantity report	3.3.3.2	G												
			Encapsulation test patches		G												
			Clearance sampling	3.2.4.3	G												
			SD-07 Certificates														
			Asbestos hazard abatement plan	1.3.9	G												
			Testing laboratory	1.3.10	G												
			Private qualified person	1.5.1	G												
			documentation														
			Landfill approval	1.3.11	G												
			Employee training	1.3.3	G												
			Medical certification	1.3.12	G												
			Waste shipment records	1.3.11	G												
			Respiratory Protection Program	1.3.6	G												
			Hazardous waste manifest	1.3.11	G												
			Vacuums	3.1.5	G												
			Water filtration equipment	3.1.2.3	G												
			Ventilation systems	3.1.5	G												
			equipment used to contain	3.1	G												
			airborne asbestos fibers														
			encapsulants	2.1	G												
			Notifications	1.3.4													
			Notifications	1.3.4													
			SD-11 Closeout Submittals														
			Notifications	1.3.4	G												
			Notifications	1.3.4	G												
			Rental equipment	1.6.1	G												

CONTRACT NO.

CONTRACTOR

[illegible]

SECTION 01140

WORK RESTRICTIONS

PART 1 GENERAL

1.1 SPECIAL SCHEDULING REQUIREMENTS

a. The Contractor shall conduct his operations so as to cause the least possible interference with normal operations of the activity. Permission to interrupt any utility service shall be required in writing at least fifteen days in advance and approval of the Contracting Officer shall be received before any service is interrupted. Interruptions of utility service will be allowed only when they will cause no interference with the operations of the activity. All utility cutovers shall be made after normal working hours or on weekends; anticipated costs shall be included in the bid.

b. Permission to interrupt any Activity roads and/or utility service shall be requested in writing a minimum of 15 calendar days prior to the desired date of interruption.

1.2 DEMOLITION AND CONSTRUCTION SEQUENCING

1.2.1 Phase I

Submit complete pre-demolition surveys of the work area prior to beginning any demolition. These surveys shall include:

- a.) Underwater Survey
- b.) Above Water Pier Survey
- c.) Asbestos Survey and Report

1.2.2 Phase II

Properly terminate and disconnect all mechanical and electrical utility services to the pier.

1.2.3 Phase III

Properly remove and dispose of all asbestos material identified in the contract.

1.2.4 Phase IV

The complete demolition and disposal of the pier including all underwater debris fields. Provide final underwater survey and report.

1.2.5 Phase V

Upon approval of all demolition conduct repairs to the remain wharf structure and all miscellaneous project items not identified in Phases I-IV.

1.3 SPECIAL CONTRACT CONDITIONS

a. The work is also in the proximity of the civilian NORSHIPCO Shipyard. The contractor shall ensure that his work does not interfere with NORSHIPCO operations.

b. The Contractor shall make provisions for the storage of equipment and materials on barges or floats since the pier and wharf is unstable. A shore side laydown area for the contractor's materials, equipment, and office trailer will be made available to the contractor upon award of the contract. The site will be identified after award of the contract and shall be within (2) miles of the worksite, but may not be along the waterfront due to the condition of the pier and wharf. The contractor shall provide all security and fencing for his laydown area.

c. PIER, WHARF, AND BULKHEAD LOAD LIMITS: The pier, portions of the wharf and bulkhead leading to the pier are unstable due to the deterioration of the timber supports and fill loss. It is not recommended to use any of these areas for material storage or be used for travel or operation of heavy equipment. All heavy demolition, construction, and pile driving operations shall be conducted from barge mounted equipment unless prior approval is obtained from the Contracting Officer. If the contractor elects to use any portions of the pier, wharf, or bulkhead for storage, staging, and/or his demolition operations, the contractor shall, at no cost to the Government, inspect, control, and ensure that these areas can safely support the new material and/or equipment loads. Any additional damage resulting from these operations shall be repaired by the contractor at no cost to the Government.

d. Special Fire Provisions. The Contractor will be furnished a list of fire and safety regulations pertaining to the station and the piers, and he shall conform to the requirements set forth at all times. In addition to others, there will be strict enforcement of "NO SMOKING" regulations on and around operational piers.

e. Interference with Navigation: The Contractor shall conduct his operation so as to interfere as little as possible with the use of channels and passages. Should it become necessary to shift or interrupt construction operations to accommodate the movement of vessels and floating equipment, this shall be done when directed by the Contracting Officer. Contractor shall coordinate all waterborne traffic and movement with the Norfolk Naval Shipyard, Norfolk Naval Station Port Operations, and NORSHIPCO Offices.

f. Lights: The Contractor shall keep proper lights each night between sunset and sunrise upon all floating equipment where necessary, and he shall be responsible for all damages resulting from neglect or failure in this respect.

1.4 CONTRACTOR ACCESS AND USE OF PREMISES

1.4.1 Working Hours

Regular working hours shall consist of an 8 1/2 hour period Monday through Friday, excluding Government holidays.

1.4.1.1 Work Outside Regular Hours

Work outside regular working hours requires Contracting Officer approval. Make application 15 calendar days prior to such work to allow arrangements to be made by the Government for inspecting the work in progress, giving

the specific dates, hours, location, type of work to be performed, contract number and project title. Based on the justification provided, the Contracting Officer may approve work outside regular hours. During periods of darkness, the different parts of the work shall be lighted in a manner approved by the Contracting Officer.

1.4.2 St. Helena Regulations

Ensure that Contractor personnel employed at St. Helena become familiar with and obey all regulations including safety, fire, traffic and security regulations. Keep within the limits of the work and avenues of ingress and egress. Ingress and egress of Contractor vehicles at the Activity is limited to the St. Helena gate. To minimize traffic congestion, delivery of materials shall be outside of peak traffic hours (6:30 to 8:00 a.m. and 3:30 to 5:00 p.m.) unless otherwise approved by the Contracting Officer. Wear hard hats in designated areas. Do not enter any restricted areas unless required to do so and until cleared for such entry. The Contractor's equipment shall be conspicuously marked for identification. Comply with the following conditions:

- a. Restrict employees/representatives to the work site and control travel directly to and from the work site.
- b. Restore all traffic/parking/security signs and markings, including space numbers, designations, and lines, to their original form if such signs/markings are defaced or deleted during construction/repair.
- c. Be responsible for control and security of Contractor-owned equipment and materials at the work site. Report immediately missing/lost/stolen property to the St. Helena Security Office and the Shipyard Police Department (phone 396-7266) as each case occurs.

1.4.3 Occupied and Existing Buildings and Piers

The Contractor shall be working around existing buildings and piers which are occupied and operational. Do not enter the buildings or piers without prior approval of the Contracting Officer.

1.4.3.1 Utility Cutovers and Interruptions

- a. Make utility cutovers and interruptions after normal working hours or on Saturdays, Sundays, and Government holidays. Conform to procedures required in the paragraph "Work Outside Regular Hours."
- b. Ensure that new utility lines are complete, except for the connection, before interrupting existing service.
- c. Interruption to water, sanitary sewer, storm sewer, telephone service, electric service, fire alarm, and compressed air shall be considered utility cutovers pursuant to the paragraph entitled "Work Outside Regular Hours."
- d. Operation of Station Utilities: The Contractor shall not operate nor disturb the setting of control devices in the station utilities system, including water, sewer, electrical, and steam services. The Government will operate the control devices as required for normal conduct of the work. The Contractor shall

notify the Contracting Officer giving reasonable advance notice when such operation is required.

1.5 SECURITY REQUIREMENTS

Contract Clause "FAR 52.204-2, Security Requirements and Alternate II," "FAC 5252.236-9301, Special Working Conditions and Entry to Work Area," and the following apply:

1.5.1 St. Helena, Norfolk, VA

Contractor employees and representatives performing work under this contract are required to be United States citizens. If naturalized, the individual shall present his naturalization papers to the Security Officer for inspection. Foreign born personnel shall present evidence of citizenship regardless of citizenship of parents, as required by immigration laws. Contractors and Contractor personnel shall be the subject of a local police records check. Contractor personnel who possess a security clearance issued by the Defense Industrial Security Clearance Office (DISCO) shall be issued a shipyard badge in the appropriate category. Each Contractor employee shall be required at the time of issuance of a personnel badge to submit a signed Privacy Act Release Form, in duplicate, to complete the local police check. Requested information shall be furnished. Individuals who have felony convictions (e.g., murder, rape, drug offences, of theft) or who are deemed untrustworthy by the Security Department, Norfolk Shipyard will be denied access and their personnel badge will be recalled.

- a. Contractor registration. Register with the St. Helena Security and Naval Shipyard Police.
- b. Storage and office trailer registration. Register storage and office trailers to be used on base with the truck investigation team. Trailers shall meet State law requirements and shall be in good condition.
 - (1) Trailers shall be lockable and shall be locked when not in use.
 - (2) Trailers shall have a sign in the lower left hand corner of left door of trailer with the following information: Company name, address, registration number of trailer or vehicle identification number, location on base, duration of contract or stay on base, contract number, local on-base phone number, off-base phone number of main office, and emergency recall person and phone number.
- c. Equipment markings. Equipment owned or rented by the company shall have the company name painted or stenciled on the equipment in a conspicuous location. Rented equipment is to be conspicuously marked with a tag showing who rented the equipment. Register the equipment with the base security team.

1.5.1.1 Commercial Vehicles

Vehicle passes will be issued to each commercial vehicle that is required for the job, authorizing entry and parking within the work area. Every vehicle entering will display the pass on the dashboard or visor (facing outward). The pass will be visible at all times. Parking is limited to

those areas that are specifically identified on the pass. If additional passes are required, present adequate justification to the Pass and ID Office via the Contracting officer.

1.5.1.2 Parking

Prohibited on any piers and waterfront areas outside of the contractor's work area. Do not park on or block the fire lanes at any time.

1.5.1.3 Vehicle Searches

Vehicles are subject to search while entering, remaining in, or leaving. Material found without a Property Pass will be confiscated and a police officer offense report issued.

1.5.1.4 Photographs

Unofficial photograph is prohibited. When operationally required, submit a written request containing specific justification and details to the Security Officer prior to release.

1.5.1.5 Identification Badges

In addition to the requirements specified in Section 01310, "Administrative Requirements", comply with the following:

- a. Employees and representatives requiring access are U.S. citizens or U.S. Nationals.
- b. Employees shall provide documented proof of U.S. citizenship to the Pass and ID Office prior to being issued a Shipyard badge.
- c. Employees shall be available for interviews upon request by the Shipyard Personnel Security Specialist.
- d. Employees shall wear and display their Contractor's badge in the chest area at all times while entering, remaining in, and exiting Government Facilities and each badge shall be used only by the specific individual named on the badge.
- e. Maintain strict accountability over identification badges and passes issued by the Pass and ID Office. Return badges/passes to the Pass Office immediately upon termination of any employee, expiration, completion of contract, or when no longer required.

1.5.2 Identification Badges

In addition to the requirements specified in Section 01310, "Administrative Requirements", comply with the following:

- a. Submit a Visit Request (VR) and Special Access Determination (SAD) for each person listed to the Security Officer (Code 1125.2) via the Contracting Officer at least 6 weeks prior to the start date.
- b. Employees and representatives requiring access are U.S. citizens or U.S. Nationals.
- c. Under no circumstances shall personnel hand carry their own visit request.

- d. Employees shall provide documented proof of U.S. citizenship to the Pass and ID Office prior to being issued a Shipyard badge.
- e. Employees shall be available for interviews upon request by the Shipyard Personnel Security Specialist.
- f. Employees shall wear and display the Shipyard badge in the chest area at all times while entering, remaining in, and exiting Shipyard spaces and each badge shall be used only by the specific individual named on the badge.
- g. Maintain strict accountability over identification badges and passes issued by the Pass and ID Office. Return badges/passes to the Pass Office immediately upon termination of any employee, expiration, completion of contract, or when no longer required.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01150N

SPECIAL PROJECT PROCEDURES

PART 1 GENERAL

1.1 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-01 Preconstruction Submittals

Watercraft list

Underwater Preconstruction Survey and Report

Above Water Pier Preconstruction Survey and Report

Asbestos Survey and Report

SD-02 Shop Drawings

Crane operating envelope (COE)

SD-07 Certificates

Crane operator's qualifications statement

Crane work plan

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 PRECONSTRUCTION SUBMITTALS

3.1.1 Surveys

All of the required Preconstruction Surveys shall be completed by the contractor and shall be reviewed and approved by the Contracting Officer prior to beginning and demolition. Allow three weeks for the Government to review all preconstruction submittal surveys and reports.

3.1.1.1 Watercraft List

Submit a watercraft list with a description of crafts used during construction of the berths. List type, size, make and model as applicable.

3.1.1.2 Underwater Preconstruction Survey

As described in Specification Section 01450. An underwater survey shall be performed prior to the start of any demolition. All existing debris fields that are present beneath or along the pier shall be categorized and measured.

The underwater survey shall also verify the number and location of all structural and fender piles, as they relate to the contract drawings and which are to be demolished. Additional piles not identified on the drawings shall be identified and quantified.

An additional underwater survey shall be performed at the completion of the project to ensure the pier structure has been completely demolished and that all debris has been removed.

3.1.1.3 Above Water Pier Preconstruction Survey

An above water survey shall be performed prior to the start of any demolition. The contractor shall compare the current site conditions with the contract documents and identify any differences which could affect the project.

3.1.1.4 Asbestos Survey

Air sampling tests described in Specification Section 13281.

3.2 CRANE OPERATIONS

All cranes and crane operations shall conform to OSHA 29 CFR 1910, OSHA 29 CFR 1926, and all State and local regulations.

3.2.1 Crane Operator's Qualifications Statement

The Contractor shall provide a written qualifications statement for each crane operator to the Contracting officer for approval. The qualification statement shall include the crane operator's name, social security number and a certification and description of the crane operator's qualifications to operate each specific crane proposed to be used. The Contractor shall allow at least ten (10) working days for approval/disapproval of each qualification statement provided. No crane operations shall begin prior to written approval of the appropriate qualifications statement by the Government. Norfolk Naval Shipyard Code 984 shall be the approving authority.

3.2.2 Crane Work Plan

The Contractor shall provide a crane work plan to the Contracting Officer for approval. The crane work plan shall include, for each crane proposed, the specific model of crane, a drawing of all locations (exact) at which dimensions, wheel sizes, number of wheels, wheel spacing, tire pressure(s), number of axles, axle spacing, maximum wheel load to be exerted during operations and maximum outrigger load to be exerted during operations. The Contractor shall allow at least ten (10) working days for approval/disapproval of the crane work plan provided. No crane operations shall begin prior to written approval of the crane work plan by the Government. Norfolk Naval Shipyard Code 984 shall be the approving authority.

3.2.3 Crane Operations Restrictions

The following restrictions shall apply to all crane operations in addition to previously noted regulatory requirements:

- a. Personnel shall not be lifted with a live hoist or friction crane.

- b. Wedged socket end connections shall be used to handle ammunition, hazardous material or explosive material or for lifting of personnel.

3.2.4 Crane Pework Meeting

The Contractor shall host a prework meeting to discuss all crane operations and the potential hazards associated with the upcoming work. This meeting is to take place prior to the submission of the crane work plan. The Contractor shall provide the Contracting Officer written notice five working days prior to the meeting. Attendees will include, at a minimum, the Contractor, ROICC, Code 106 and Code 700.

3.3 MERCURY MATERIALS

Mercury is prohibited in the construction of this facility, unless specified otherwise, and with the exception of mercury vapor lamps and fluorescent lamps. Dumping of mercury-containing materials and devices such as mercury vapor lamps, fluorescent lamps, and mercury switches, in rubbish containers is prohibited. Remove without breaking, pack to prevent breakage, and transport out of the activity in an unbroken condition for disposal as directed. Immediately report to the Shipyard fire department and the Contracting Officer instances of breakage or mercury spillage. Clean mercury spill area to the satisfaction of the Contracting Officer.

All Contractors and contract personnel performing work on items, equipment, components, materials which contain mercury or mercury compounds, such as mercury switches or fluorescent/mercury vapor lamps, shall abide by the requirement of NAVSHIPYDNORINST P5100.56, Volume III, Chapter 10, "Control of Occupations Exposure to Mercury and Mercury Compounds." Mercury may have harmful effects on personnel, materials and the environment. The Occupational Safety, Health and Environment Office (Code 106) must be contacted for approval prior to using mercury, mercury compounds, mercury containing items, equipment, materials or prior to using any materials contaminated by mercury. Mercury containing items, including fluorescent/mercury vapor lamps, must be properly disposed of in accordance with NAVSHIPYDNORINST P5100.56, Volume III, Chapter 10.

3.4 HAZARDS TO WATERFRONT OPERATION

3.4.1 Work in Proximity to Piers

Accomplish all construction work on the pier and along the waterfront with extreme care regarding the Naval ship operations. Cooperate closely, and coordinate with the Port Operations Officer and the Contracting Officer. Park equipment in an area designated by the Contracting Officer. Under no circumstances shall equipment be parked overnight or for any extended period of time in areas not designated by the Contracting Officer. Leave no material in areas where extreme care is to be taken regarding the Navy operations.

3.4.2 Ship Operating Schedule

The Government will exert every effort to schedule ship operations so as to permit the maximum amount of time for the Contractor's activities; however, in the event of emergency, intense operational demands, adverse wind conditions, and other such unforeseen difficulties, the Contractor shall discontinue operations at the specified locations for the safety of the

Contractor and military personnel and Government property.

3.5 HARBOR WATERWAYS

In addition to "DFARS 252.236-7002, Obstruction of Navigable Waterways," obtain from the Operations Officer via the Contracting Officer, permission to use the waterways and the regulations and directives governing such usage. Submit a watercraft list with a description of crafts, including sizes, types, numbers and boat crew for approval.

3.5.1 Hazards to Navigation

Maintain complete control of the movement of floating equipment and material. Loose floating equipment and material are not permitted. Keep in readiness at all times a powered craft capable of moving, securing and disposing of floating equipment which may get loose and become a hazard to navigation.

-- End of Section --

SECTION 01320N

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.1 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-01 Preconstruction Submittals

Demolition and Construction schedule; G

Equipment delivery schedule; G

1.2 DEMOLITION AND CONSTRUCTION SCHEDULE

Within 21 days after receipt of the Notice of Award, prepare and submit to the Contracting Officer for approval a demolition and construction schedule in the form of a progress chart in accordance with the terms in Contract Clause "FAR 52.236-15, Schedules for Construction Contracts," except as modified in this contract. All phases of the demolition and construction, including surveys, utility disconnections, hazardous waste removal, demolition, construction, and other incidental phases shall be identified and included in the schedule.

1.3 EQUIPMENT DELIVERY SCHEDULE

1.3.1 Initial Schedule

Within 30 calendar days after approval of the proposed construction schedule, submit for Contracting Officer approval a schedule showing procurement plans for materials, plant, and equipment. Submit in the format and content as prescribed by the Contracting Officer, and include as a minimum the following information:

- a. Description.
- b. Date of the purchase order.
- c. Promised shipping date.
- d. Name of the manufacturer or supplier.
- e. Date delivery is expected.
- f. Date the material or equipment is required, according to the current construction schedule.

1.4 UPDATED SCHEDULES

Update the construction schedule and equipment delivery schedule at monthly intervals or when schedule has been revised. Reflect any changes occurring since the last update. Submit copies of the purchase orders and confirmation of the delivery dates as directed.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

01450N

QUALITY CONTROL

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 880	(1995) Criteria for Use in Evaluation of Testing Laboratories and Organization for Examination and Inspection of Steel, Stainless Steel, and Related Alloys
ASTM C 1077	(1998) Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation
ASTM D 3666	(2000) Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials
ASTM D 3740	(1999; Rev C.) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
ASTM E 329	(2000; Rev. A) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction
ASTM E 543	(1999) Agencies Performing Nondestructive Testing

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(1996) Safety and Health Requirements Manual
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1.2 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-01 Preconstruction Submittals

Quality Control (QC) plan; G

Submit a QC plan within 20 calendar days after receipt of Notice of Award.

The QC Plan shall include a preliminary submittal of the list of definable features of the hazardous material testing, surveys, demolition and new work that shall cover the first 90 days of construction.

Submit the completed list of definable features of work in conjunction with the Accepted Network Analysis Schedule.

Any approval by the Government of the QC Plan shall be considered to be "approved as noted, resubmittal required" and will be in effect only until the completed list of definable features of work is received and approved. If the completed list of definable features of work and accepted network schedule is not received within the time indicated in the paragraph entitled "Accepted Network Analysis Schedule" of Section 01321N "Network Analysis Schedules," the QC Plan will become disapproved and all work, except for the work authorized in the paragraph entitled "Preliminary Work Authorized Prior to Approval," will stop.

1.3 INFORMATION FOR THE CONTRACTING OFFICER

Prior to commencing work on construction, the Contractor can obtain a single copy set of the current report forms from the Contracting Officer, or by calling the local EFD/EFA QA Coordinator for an electronic version of the report forms. The report forms will consist of the Contractor Production Report, Contractor Production Report (Continuation Sheet), Contractor Quality Control Report, Contractor Quality Control Report (Continuation Sheet), Preparatory Phase Checklist, Initial Phase Checklist, Rework Items List, and Testing Plan and Log. Other reports referenced below may be in formats customarily used by the Contractor, Testing Laboratories, etc. and will contain the information required by this specification.

Deliver the following to the Contracting Officer:

- a. Contractor Quality Control Report; original and 1 copy, by 10:00 AM the next working day after each day that work is performed.
- b. Contractor Production Report: Original and 1 copy, by 10:00 AM the next working day after each day that work is performed, attached to the Contractor Quality Control Report.
- c. Preparatory Phase Checklist: Original attached to the original Contractor Quality Control Report and 1 copy attached to each copy.
- d. Initial Phase Checklist: Original attached to the original Contractor Quality Control Report and 1 copy attached to each copy.
- e. QC specialist Reports: Originals and 3 copies, by 10:00 AM the next working day after each day that work is performed, attached to the Contractor Quality Control Report.
- f. Field Test Reports: 2 copies, within 2 working days after the test is performed, attached to the Contractor Quality Control Report.
- g. Monthly Summary Report of Tests: 2 copies attached to the Contractor Quality Control Report.

- h. Testing Plan and Log, 2 copies, at the end of each month.
- i. Rework Items List: 2 copies, by the last working day of the month.
- j. QC Meeting Minutes: 2 copies, within 2 working days after the meeting.
- k. QC Certifications: As required by the paragraph entitled "QC Certifications."

1.4 QC PROGRAM REQUIREMENTS

Establish and maintain a QC program as described in this section. The QC program consists of a QC Organization, a QC Plan, a QC Plan Meeting, a Coordination and Mutual Understanding Meeting, QC meetings, three phases of control, submittal review and approval, testing, completion inspections, and QC certifications and documentation necessary to provide materials, equipment, workmanship, fabrication, construction and operations which comply with the requirements of this Contract. The QC program shall cover on-site and off-site work and shall be keyed to the work sequence. No work or testing may be performed unless the QC Manager is on the work site. The QC Manager shall report to an officer of the firm and shall not be subordinate to the Project Superintendent or the Project Manager. The QC Manager, Project Superintendent and Project Manager must work together effectively. Although the Quality Control Manager is the primary individual responsible for quality control, all three individuals will be held responsible for the quality of work on the job. The project superintendent will be held responsible for the quality of production.

1.4.1 Preliminary Work Authorized Prior to Approval

The only work that is authorized to proceed prior to the approval of the QC Plan is mobilization of storage and office trailers, temporary utilities, and surveying.

1.4.2 Approval

Approval of the QC Plan is required prior to the start of construction. The Contracting Officer reserves the right to require changes in the QC Plan and operations as necessary, including removal of personnel, to ensure the specified quality of work. The Contracting Officer reserves the right to interview any member of the QC organization at any time in order to verify the submitted qualifications. All QC organization personnel shall be subject to acceptance by the Contracting Officer. The Contracting Officer may require the removal of any individual for non-compliance with quality requirements specified in the contract.

1.4.3 Notification of Changes

Notify the Contracting Officer, in writing, of any proposed change, including changes in the QC organization personnel, a minimum of seven calendar days prior to a proposed change. Proposed changes shall be subject to acceptance by the Contracting Officer.

1.5 QC ORGANIZATION

1.5.1 QC Manager

1.5.1.1 Duties

Provide a QC Manager at the work site to implement and manage the QC program. In addition to implementing and managing the QC program, the QC Manager may perform the duties of project superintendent. The QC Manager is required to attend the QC Plan Meeting, attend the Coordination and Mutual Understanding Meeting, conduct the QC meetings, perform the three phases of control except for those phases of control designated to be performed by QC specialists, perform submittal review and approval, ensure testing is performed and provide QC certifications and documentation required in this contract. The QC Manager is responsible for managing and coordinating the three phases of control and documentation performed by the QC specialists, Testing Laboratory personnel and any other inspection and testing personnel required by this Contract.

1.5.1.2 Qualifications

An individual with a minimum of 10 years experience as a superintendent, inspector, QC Manager, project manager, project engineer or construction manager on similar size and type construction contracts which included the major trades that are part of this Contract. The individual must be familiar with the requirements of EM 385-1-1, and have experience in the areas of hazard identification and safety compliance.

1.5.1.3 Construction Quality Management Training

In addition to the above experience and education requirements, the QC Manager shall have completed the course entitled "Construction Quality Management for Contractors." If the QC Manager does not have a current certification, they shall obtain the CQM course certification within 90 days of award. This one-day course is periodically offered in alternate months by : (1) the Maryland Chapter, Associated General Contractors (AGC), 410-321-7870; agcmd@aol.com and by (2) the Virginia Chapter, Associated Builders and Contractors (ABC), 703-968-6205, joanna@abdva.org; mervin@abc.org. The training uses Army Corps of engineers course content. The course is facilitated by instructors from Army Corps of Engineers, North Atlantic Division, Balitmore District, and by instructors from the Naval Facilities Engineering Command, Engineering Field Activity Chesapeake.

1.5.2 Alternate QC Manager Duties and Qualifications

Designate an alternate for the QC Manager at the work site to serve in the event of the designated QC Manager's absence. The period of absence may not exceed two weeks at one time, and not more than 30 workdays during a calendar year. The qualification requirements for the Alternate QC Manager shall be the same as for the QC manager.

1.5.3 QC Specialists Duties and Qualifications

Provide a separate QC specialist at the work site for each of the areas of responsibilities, specified below, who shall assist and report to the QC Manager and who may perform production related duties but must be allowed sufficient time to perform their assigned quality control duties. QC specialists are required to attend the Coordination and Mutual Understanding Meeting, QC meetings, and be physically present at the construction site to perform the three phases of control and prepare documentation for each definable feature of work in their area of responsibility at the frequency specified below.

Qualification/Experience
in Area of Responsibility

Area of
Responsibility

10 years Underwater Construction

Underwater Inspections

1.5.3.1 Underwater and Survey QC Team Specialists

Provide Underwater QC (UWQC) Team at the work site to perform underwater surveillance and inspection for the contractor upon completion the work.

The UWQC Team divers shall have current commercial diver's license, with a minimum of five (10) years experience with underwater construction and inspection. The personnel make up of the UWQC team shall comply with COE EM-385-1-1, OSHA and local requirements for contract diving operations. The UWQC team shall comply with all the applicable safety requirements of COE EM-385-1-1, OSHA and local requirements for contract diving operations.

The UWQC lead diver shall be thoroughly familiar with the design plans and specifications to sufficiently understand the engineering aspects of the U/W construction and to be able to recognize and document potential problem areas such as improperly constructed or defective areas. The UWQC Team shall provide all necessary equipment to conduct surveillance and inspection services, including diver's equipment, dive boat, communication equipment, and photographic/video equipment. Diver(s) shall be equipped to maintain two-way communication with QC personnel during diving operations. A report including photographs and/or videos shall be prepared and submitted with the QC report after each dive.

An underwater survey shall be performed prior to the start of any demolition in order to identify and measure existing debris fields that may be present beneath or along the pier prior to beginning any work. An additional underwater survey shall be performed at the completion of all pier and debris demolition to ensure the pier structure has been completely demolished and that all debris has been removed.

The UWQC Team shall be an independent third party hired directly by the prime contractor, and shall have no involvement with the design, preparation of contract documents, demolition, or installation of work. The UWQC Team shall have Contracting Officer approval before beginning the inspections.

1.6 QUALITY CONTROL (QC) PLAN

1.6.1 Requirements

Provide, for approval by the Contracting Officer, a QC plan submitted in a 3-ring binder with pages numbered sequentially that covers both on-site and off-site work and includes the following:

- a. A table of contents listing the major sections identified with tabs in the following order:

- I. QC ORGANIZATION
- II. NAMES AND QUALIFICATIONS
- III. DUTIES, RESPONSIBILITY AND AUTHORITY OF QC PERSONNEL
- IV. OUTSIDE ORGANIZATIONS
- V. APPOINTMENT LETTERS
- VI. SUBMITTAL PROCEDURES AND INITIAL SUBMITTAL REGISTER
- VII. TESTING LABORATORY INFORMATION
- VIII. TESTING PLAN AND LOG

- IX. PROCEDURES TO COMPLETE REWORK ITEMS
 - X. DOCUMENTATION PROCEDURES
 - XI. LIST OF DEFINABLE FEATURES
 - XII. PROCEDURES FOR PERFORMING THE THREE PHASES OF CONTROL
 - XIII. PERSONNEL MATRIX
 - XIV. PROCEDURES FOR COMPLETION INSPECTION
- b. A chart showing the QC organizational structure.
- c. Names and qualifications, in resume format, for each person in the QC organization. Include the CQM course certifications for the QC Manager and Alternate QC Manager as required by the paragraphs entitled "Construction Quality Management Training" and "Alternate QC Manager Duties and Qualifications".
- d. Duties, responsibilities and authorities of each person in the QC organization.
- e. A listing of outside organizations such as, architectural and consulting engineering firms that will be employed by the Contractor and a description of the services these firms will provide.
- f. Letters signed by an officer of the firm appointing the QC Manager and Alternate QC Manager and stating that they are responsible for implementing and managing the QC program as described in this contract. Include in this letter the responsibility of the QC Manager and Alternate QC Manager to implement and manage the three phases of quality control, and their authority to stop work which is not in compliance with the contract. The QC Manager shall issue letters of direction to all other QC specialists outlining their duties, authorities, and responsibilities. Copies of the letters shall be included in the QC plan.
- g. Procedures for reviewing, approving and managing submittals. Provide the names of the persons in the QC organization authorized to review and certify submittals prior to approval. Provide the initial submittal of the Submittal Register as specified in section entitled "Submittal Procedures."
- h. Testing laboratory information required by the paragraphs entitled "Accreditation Requirements" or "Construction Materials Testing Laboratory Requirements", as applicable.
- i. A Testing Plan and Log that includes the tests required, referenced by the specification paragraph number requiring the test, the frequency, and the person responsible for each test.
- j. Procedures to identify, record, track and complete rework items.
- k. Documentation procedures, including proposed report formats.
- l. List of definable features of work. A definable feature of work (DFOW) is a task which is separate and distinct from other tasks, has the same control requirements and work crews. The list shall be cross-referenced to the contractor's Construction Schedule and the specification sections. For projects requiring a Progress Chart, the list of definable features of work shall include but not be limited to all items of work on the schedule. For projects

requiring a Network Analysis Schedule, the list of definable features of work shall include but not be limited to all critical path activities.

(1) Include all activities for which this specification requires QC specialists or Specialty Inspection Personnel, and the following specific definable features of work:

(a) Hazardous Material Testing

(b) Pre-demolition/Post Demolition Underwater Surveys

- m. Procedures for Performing the Three Phases of Control. For each DFO, provide the DFO's Preparatory and Initial Phase Checklists. Each list shall include a breakdown of quality checks that will be used when performing the quality control functions, inspections, and tests required by the contract documents. The Preparatory and Initial Phases and meetings shall be conducted with a view towards obtaining quality construction by planning ahead and identifying potential problems for each definable feature of work.

1.7 QC PLAN MEETING

Prior to submission of the QC plan, meet with the Contracting Officer to discuss the QC plan requirements of this Contract. The purpose of this meeting is to develop a mutual understanding of the QC plan requirements prior to plan development and submission.

1.8 COORDINATION AND MUTUAL UNDERSTANDING MEETING

After submission of the QC Plan, and prior to the start of construction, meet with the Contracting Officer to present the QC program required by this Contract. The purpose of this meeting is to develop a mutual understanding of the QC details, including documentation, administration for on-site and off-site work, and the coordination of the Contractor's management, production and QC personnel. At the meeting, the Contractor will be required to explain in detail how three phases of control will be implemented for each definable feature of work. As a minimum, the Contractor's personnel required to attend shall include an officer of the firm, the project manager, project superintendent, QC Manager, Alternate QC Manager, QC specialists, and subcontractor representatives. Each subcontractor who will be assigned QC responsibilities shall have a principal of the firm at the meeting. Minutes of the meeting will be prepared by the QC Manager and signed by the Contractor and the Contracting Officer. A copy of the signed minutes shall be provided to all attendees by the Contractor. Repeat the coordination and mutual understanding meeting when a new QC Manager is appointed.

1.9 QC MEETINGS

After the start of construction, the QC Manager shall conduct QC meetings once every two weeks at the work site with the project superintendent and QC specialists. The QC Manager shall prepare the minutes of the meeting and provide a copy to the Contracting Officer within 2 working days after the meeting. The Contracting Officer may attend these meetings. The QC Manager shall notify the Contracting Officer at least 48 hours in advance of each meeting. As a minimum, the following shall be accomplished at each meeting:

- a. Review the minutes of the previous meeting;
- b. Review the schedule and the status of work:
 - (1) Work or testing accomplished since last meeting
 - (2) Rework items identified since last meeting
 - (3) Rework items completed since last meeting;
- c. Review the status of submittals:
 - (1) Submittals reviewed and approved since last meeting
 - (2) Submittals required in the near future;
- d. Review the work to be accomplished in the next 2 weeks and documentation required:
 - (1) Establish completion dates for rework items
 - (2) Update the schedule showing planned and actual dates of the preparatory, initial and follow-up phases, including testing and any other inspection required by this contract
 - (3) Discuss construction methods and the approach that will be used to provide quality construction by planning ahead and identifying potential problems for each definable feature of work
 - (4) Discuss status of off-site work or testing
 - (5) Documentation required;
 - (6) Discuss upcoming Activity Hazard Analyses:
- e. Resolve QC and production problems:
 - (1) Assist in resolving Request for Information issues; and
- f. Address items that may require revising the QC plan:
 - (1) Changes in QC organization personnel
 - (2) Changes in procedures.
- g. Review health and safety plan

1.10 THREE PHASES OF CONTROL

The Three Phases of Control shall adequately cover both on-site and off-site work and shall include the following for each definable feature of work.

1.10.1 Preparatory Phase

Notify the Contracting Officer at least 2 work days in advance of each preparatory phase. This phase shall include a meeting conducted by the QC Manager and attended by the QC specialists, the superintendent, and the

foreman responsible for the definable feature. Document the results of the preparatory phase actions in the daily Contractor Quality Control Report and in the Preparatory Phase Checklist. Perform the following prior to beginning work on each definable feature of work:

- a. Review each paragraph of the applicable specification sections;
- b. Review the Contract drawings;
- c. Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required;
- d. Review the testing plan and ensure that provisions have been made to provide the required QC testing;
- e. Examine the work area to ensure that the required preliminary work has been completed;
- f. Examine the required materials, equipment and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data;
- g. Discuss construction methods, construction tolerances, workmanship standards, and the approach that will be used to provide quality construction by planning ahead and identifying potential problems for each definable feature of work; and
- h. Review the safety plan and appropriate activity hazard analysis to ensure that applicable safety requirements are met, and that required Material Safety Data Sheets (MSDS) are submitted.

1.10.2 Initial Phase

Notify the Contracting Officer at least 2 work days in advance of each initial phase. When construction crews are ready to start work on a definable feature of work, conduct the initial phase with the QC Specialists, the superintendent, and the foreman responsible for that definable feature of work. Observe the initial segment of the definable feature of work to ensure that the work complies with Contract requirements. Document the results of the initial phase in the daily Contractor Quality Control Report and in the Initial Phase Checklist. Repeat the initial phase for each new crew to work on-site, or when acceptable levels of specified quality are not being met. Perform the following for each definable feature of work:

- a. Establish the quality of workmanship required;
- b. Resolve conflicts;
- c. Ensure that testing is performed by the approved laboratory, and
- d. Check work procedures for compliance with the Safety Plan and the appropriate activity hazard analysis to ensure that applicable safety requirements are met.

1.10.3 Follow-Up Phase

Perform the following for on-going work daily, or more frequently as

necessary until the completion of each definable feature of work and document in the daily Contractor Quality Control Report:

- a. Ensure the work is in compliance with Contract requirements;
- b. Maintain the quality of workmanship required;
- c. Ensure that testing is performed by the approved laboratory;
- d. Ensure that rework items are being corrected; and
- e. Perform safety inspections.

1.10.4 Additional Preparatory and Initial Phases

Additional Preparatory and Initial Phases shall be conducted on the same definable features of work if the quality of on-going work is unacceptable, if there are changes in the applicable QC organization, if there are changes in the on-site production supervision or work crew, if work on a definable feature is resumed after substantial period of inactivity, or if other problems develop.

1.10.5 Notification of Three Phases of Control for Off-Site Work

Notify the Contracting Officer at least two weeks prior to the start of the preparatory and initial phases.

1.11 SUBMITTAL REVIEW AND APPROVAL

Procedures for submission, review and approval of submittals are described in section entitled "Submittal Procedures."

1.12 TESTING

Except as stated otherwise in the specification sections, perform sampling and testing required under this Contract.

1.12.1 Accreditation Requirements

Construction materials testing laboratories performing work for Navy construction contracts will be required to submit the following:

- a. A copy of the Certificate of Accreditation and Scope of Accreditation by an acceptable laboratory accreditation authority.

Construction materials testing laboratories performing work for Navy construction contracts must be accredited by one of the laboratory accreditation authorities. The laboratory's scope of accreditation must include the ASTM standards listed in the paragraph titled "Construction Materials Testing Laboratory Requirements" as appropriate to the testing field. The policy applies to the specific laboratory performing the actual testing, not just the "Corporate Office".

1.12.2 Construction Materials Testing Laboratory Requirements

Provide an independent construction materials testing laboratory or establish a laboratory accredited by an acceptable laboratory accreditation authority to perform sampling and tests required by this Contract. Testing laboratories that have obtained accreditation by an acceptable laboratory

accreditation authority listed in the paragraph entitled "Laboratory Accreditation Authorities" submit to the Contracting Officer, a copy of the Certificate of Accreditation and Scope of Accreditation. The scope of the laboratory's accreditation shall include the test methods required by the Contract. For testing laboratories that have not yet obtained accreditation by an acceptable laboratory accreditation authority listed in the paragraph entitled "Laboratory Accreditation Authorities" submit an acknowledgment letter from one of the laboratory accreditation authorities indicating that the application for accreditation has been received and the accreditation process has started, and submit to the Contracting Officer for approval, certified statements, signed by an official of the testing laboratory attesting that the proposed laboratory, meets or conforms to the ASTM standards listed below as appropriate to the testing field.

- a. Laboratories engaged in testing of construction materials shall meet the requirements of ASTM E 329.
- b. Laboratories engaged in testing of concrete and concrete aggregates shall meet the requirements of ASTM C 1077.
- c. Laboratories engaged in testing of bituminous paving materials shall meet the requirements of ASTM D 3666.
- d. Laboratories engaged in testing of soil and rock, as used in engineering design and construction, shall meet the requirements of ASTM D 3740.
- e. Laboratories engaged in inspection and testing of steel, stainless steel, and related alloys will be evaluated according to ASTM A 880.
- f. Laboratories engaged in nondestructive testing (NDT) shall meet the requirements of ASTM E 543.
- g. Laboratories engaged in Hazardous Materials Testing shall meet the requirements of OSHA and EPA.

1.12.3 Laboratory Accreditation Authorities

Laboratory Accreditation Authorities are the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology, the American Association of State Highway and Transportation Officials (AASHTO) program, ICBO Evaluation Service, Inc. (ICBO ES), and the American Association for Laboratory Accreditation (A2LA) program and the Washington Association of Building Officials (WABO) (Approval authority for WABO is limited to projects within Washington State), and the Washington Area Council of Engineering Laboratories (WACEL) (Approval authority by WACEL is limited to projects within the Chesapeake Division and Public Works Center Washington geographical area).

Furnish to the Contracting Officer, a copy of the Certificate of Accreditation and Scope of Accreditation. The scope of the laboratory's accreditation shall include the test methods required by the Contract.

1.12.4 Capability Check

The Contracting Officer retains the right to check laboratory equipment in the proposed laboratory and the laboratory technician's testing procedures, techniques, and other items pertinent to testing, for compliance with the standards set forth in this Contract.

1.12.5 Test Results

Cite applicable Contract requirements, tests or analytical procedures used.

Provide actual results and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. If the item fails to conform, notify Contracting Officer immediately. Conspicuously stamp the cover sheet for each report in large red letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements, whichever is applicable. Test results shall be signed by a testing laboratory representative authorized to sign certified test reports. Furnish the signed reports, certifications, and other documentation to the Contracting Officer via the QC Manager. Furnish a summary report of field tests at the end of each month. Attach a copy of the summary report to the last daily Contractor Quality Control Report of each month.

1.12.6 Test Reports and Monthly Summary Report of Tests

The QC Manager shall furnish the signed reports, certifications, and a summary report of field tests at the end of each month to the Contracting Officer. Attach a copy of the summary report to the last daily Contractor Quality Control Report of each month.

1.13 QC CERTIFICATIONS

1.13.1 Contractor Quality Control Report Certification

Each Contractor Quality Control Report shall contain the following statement: "On behalf of the Contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report."

1.13.2 Invoice Certification

Furnish a certificate to the Contracting Officer with each payment request, signed by the QC Manager, attesting that as-built drawings are current and attesting that the work for which payment is requested, including stored material, is in compliance with contract requirements.

1.13.3 Completion Certification

Upon completion of work under this Contract, the QC Manager shall furnish a certificate to the Contracting Officer attesting that "the work has been completed, inspected, tested and is in compliance with the Contract."

1.14 COMPLETION INSPECTIONS

1.14.1 Punch-Out Inspection

Near the completion of all work or any increment thereof established by a completion time stated in the Contract Clause entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the QC Manager shall conduct an inspection of the work and develop a "punch list" of items which do not conform to the approved drawings and specifications. Include in the punch list any remaining items on the "Rework Items List" which were not corrected prior to the Punch-Out Inspection. The punch list shall include the estimated date by which the

deficiencies will be corrected. A copy of the punch list shall be provided to the Contracting Officer. The QC Manager or staff shall make follow-on inspections to ascertain that all deficiencies have been corrected. Once this is accomplished the Contractor shall notify the Government that the facility is ready for the Government "Pre-Final Inspection."

1.14.2 Pre-Final Inspection

The Government will perform this inspection to verify that the facility is complete and ready to be occupied. A Government "Pre-Final Punch List" may be developed as a result of this inspection. The QC Manager shall ensure that all items on this list are corrected prior to notifying the Government that a "Final" inspection with the customer can be scheduled. Any items noted on the "Pre-Final" inspection shall be corrected in timely manner and shall be accomplished before the contract completion date for the work or any particular increment thereof if the project is divided into increments by separate completion dates.

1.14.3 Final Acceptance Inspection

The QC Manager, the QC specialists, the superintendent or other primary contractor management personnel, and the Contracting Officer's representative will be in attendance at this inspection. Additional Government personnel may be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the "Pre-Final" inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final inspection stating that all specific items previously identified to the Contractor as being unacceptable, along with all the remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the Contract Clause entitled "Inspection of Construction." When the Contracting Officer takes possession of partially completed work, it will be in accordance with Contract Clause "Use and Possession Prior to Completion".

1.15 DOCUMENTATION

Maintain current and complete records of on-site and off-site QC program operations and activities.

1.15.1 Contractor Production Report

Reports are required for each day that work is performed and shall be attached to the Contractor Quality Control Report prepared for the same day. Account for each calendar day throughout the life of the Contract. The reporting of work shall be identified by terminology consistent with the construction schedule. Contractor Production Reports are to be prepared, signed and dated by the project superintendent and shall contain the following information:

- a. Date of report, report number, name of contractor, Contract number, title and location of Contract and superintendent present.
- b. Weather conditions in the morning and in the afternoon including maximum and minimum temperatures.

- c. Identify work performed by corresponding Schedule Activity No., PC#, Modification No., etc.
- d. A list of Contractor and subcontractor personnel on the work site, their trades, employer, work location, description of work performed, hours worked by trade, daily total work hours on work site this date (incl hours on continuation sheets), and total work hours from start of construction.
- e. A list of job safety actions taken and safety inspections conducted. Indicate that safety requirements have been met including the results on the following:
 - (1) Was a job safety meeting held this date? (If YES, attach a copy of the meeting minutes.)
 - (2) Were there any lost time accidents this date? (If YES, attach a copy of the completed OSHA report.)
 - (3) Was crane/manlift/trenching/scaffold/hv electrical/high work/hazmat work done? (If YES, attach a statement or checklist showing inspection performed.)
 - (4) Was hazardous material/waste released into the environment? (If YES, attach a description of incident and proposed action.)
- f. Identify Schedule Activity No. related to safety action and list safety actions taken today and safety inspections conducted.
- g. Identify Schedule Activity No., Submittal # and list equipment/material received each day that is incorporated into the job.
- h. Identify Schedule Activity No., Owner and list construction and plant equipment on the work site including the number of hours used.
- i. Include a "remarks" section in this report which will contain pertinent information including directions received, problems encountered during construction, work progress and delays, conflicts or errors in the drawings or specifications, field changes, safety hazards encountered, instructions given and corrective actions taken, delays encountered and a record of visitors to the work site. For each remark given, identify the Schedule Activity No. that is associated with the remark.

1.15.1.1 Contractor Production Report (Continuation Sheet)

Additional space required to contain daily information on the Contractor Production Report will be placed on its Continuation Sheet(s). An unlimited number of Continuation Sheets may be added as necessary and attached to the Production Report.

1.15.2 Contractor Quality Control Report

Reports are required for each day that work is performed and for every seven consecutive calendar days of no-work and on the last day of a no-work period. Account for each calendar day throughout the life of the Contract. The reporting of work shall be identified by terminology consistent with

the construction schedule. Contractor Quality Control Reports are to be prepared, signed and dated by the QC Manager and shall contain the following information:

- a. Date of report, report number, Contract Number, and Contract Title.
- b. Indicate if Preparatory Phase work was performed today (Yes/No checkboxes).
- c. If Preparatory Phase work was performed today (including on-site and off-site work), identify its Schedule Activity No. and Definable Feature of Work. The Index # is a cross reference to the Preparatory Phase Checklist. An example of the Index # is: 0025-P01, where "0025" is the Contractor Quality Control Report Number, "P" indicates Preparatory Phase, and "01" is the Preparatory Phase Checklist number(s) for this date. Each entry in this section must be accompanied with a corresponding Preparatory Phase Checklist.
- d. Indicate if Initial Phase work was performed today (Yes/No checkboxes).
- e. If Initial Phase work was performed today (including on-site and off-site work), identify its Schedule Activity No. and Definable Feature of Work. The Index # is a cross reference to the Initial Phase Checklist. An example of the Index # is: 0025-I01, where "0025" is the Contractor Quality Control Report Number, "I" indicates Initial Phase, and "01" is the Initial Phase Checklist number(s) for this date. Each entry in this section must be accompanied with a corresponding Initial Phase Checklist.
- f. Results of the Follow-up Phase inspections held today (including on-site and off-site work), including Schedule Activity No., the location of the definable feature of work, Specification Sections, etc. Indicate in the report for this definable feature of work that the work complies with the Contract as approved in the Initial Phase, work complies with safety requirements, and that required testing has been performed and include a list of who performed the tests.
- g. List the rework items identified, but not corrected by close of business; along with its associated Schedule Activity Number.
- h. List the rework items corrected from the rework items list along with the corrective action taken and its associated Schedule Activity Number.
- i. Include a "remarks" section in this report which will contain pertinent information including directions received, quality control problem areas, deviations from the QC plan, construction deficiencies encountered, QC meetings held, acknowledgement that as-built drawings have been updated, corrective direction given by the QC Organization and corrective action taken by the Contractor. For each remark given, identify the Schedule Activity No. that is associated with the remark.
- j. Contractor Quality Control Report certification, signature and date.

1.15.2.1 Contractor Quality Control Report (Continuation Sheet)

Additional space required to contain daily information on the Contractor Quality Control Report will be placed on its Continuation Sheet(s). An unlimited number of Continuation Sheets may be added as necessary and attached to the Contractor Quality Control Report.

1.15.3 Preparatory Phase Checklist

Each Definable Feature of Work that is in the Preparatory Phase shall have this checklist filled out for it. The checklist shall be identified by terminology consistent with the construction schedule. Attach this checklist to the Contractor Quality Control Report of the same date.

- a. Specification Section, date of report, and Contract number shall be filled out. Duplicate this information in the header of the second page of the report.
- b. Definable Feature of Work, Schedule Activity No. and Index # entry and format will match entry in the Preparatory Phase section of the Contractor Quality Control Report. Duplicate this information in the header of the second page of the report.
- c. Personnel Present: Indicate the number of hours of advance notice that was given to the Government Representative and indicate (Yes/No checkboxes) whether or not the Government Rep was notified. Indicate the Names of Preparatory Phase Meeting attendees, their position and company/government they are with.
- d. Submittals: Indicate if submittals have been approved (Yes/No checkboxes), if no indicate what has not been submitted. Are materials on hand (Yes/No checkboxes) and if not, what items are missing. Check delivered material/equipment against approved submittals and comment as required.
- e. Material Storage: Indicate if materials/equipment is stored properly (Yes/No checkboxes) and if not, what action is/was taken.
- f. Specifications: Review and comment on Specification Paragraphs that describe the material/equipment, procedure for accomplishing the work and clarify any differences.
- g. Preliminary Work & Permits: Ensure preliminary work is in accordance with the contract documents and necessary permits are on file, if not, describe the action taken.
- h. Testing: Identify who performs tests, the frequency, and where tests are to occur. Review the testing plan, report abnormalities, and if the test facilities have been approved.
- i. Safety: Indicate if the activity hazard analysis has been approved (Yes/No checkboxes) and comment on the review of the applicable portions of the EM 385-1-1.
- j. Meeting Comments: Note comments and remarks during the Preparatory Phase Meeting that was not addressed in previous sections of this checklist.
- k. Other Items or Remarks: Note any other remarks or items that were

a result of the Preparatory Phase.

1. QC Manager will sign and date the checklist.

1.15.4 Initial Phase Checklist

Each Definable Feature of Work that is in the Initial Phase shall have this checklist filled out for it. The checklist shall be identified by terminology consistent with the construction schedule. Attach this checklist to the Contractor Quality Control Report of the same date.

- a. Specification Section, date of report, and Contract number shall be entered.
- b. Definable Feature of Work, Schedule Activity No. and Index # entry and format will match entry in the Initial Phase section of the Contractor Quality Control Report.
- c. Personnel Present: Indicate the number of hours of advance notice that was given to the Government Representative and indicate (Yes/No checkboxes) whether or not the Government Rep was notified. Indicate the Names of Initial Phase Meeting attendees, their position and company/government they are with.
- d. Procedure Compliance: Comment on compliance with procedures identified at Preparatory Phase of Control and assurance that work is in accordance with plans, specifications and submittals.
- e. Preliminary Work: Ensure preliminary work being placed is in compliance and if not, what action is/was taken.
- f. Workmanship: Identify where initial work is located; if a sample panel is required (Yes/No checkboxes); is the initial work the sample (Yes/No checkboxes); and if Yes, describe the panel location and precautions taken to preserve the sample.
- g. Resolution: Comment on any differences and the resolutions reached.
- h. Check Safety: Comment on the safety review of the job conditions.
- i. Other: Note any other remarks or items that were a result of the Initial Phase.
- j. QC Manager will sign and date the checklist.

1.15.5 Quality Control Validation

Establish and maintain the following in a series of 3 ring binders. Binders shall be divided and tabbed as shown below. These binders shall be readily available to the Government's Quality Assurance Team during all business hours.

- a. All completed Preparatory and Initial Phase Checklists, arranged by specification section.
- b. All milestone inspections , arranged by Activity/Event Number.
- c. A current up-to-date copy of the Testing and Plan Log with

supporting field test reports, arranged by specification section.

- d. Copies of all contract modifications, arranged in numerical order. Also include documentation that modified work was accomplished.
- e. A current up-to-date copy of the Rework Items List.
- f. Maintain up-to-date copies of all punch lists issued by the QC Staff on the Contractor and Sub-Contractors and all punch lists issued by the Government.

1.15.6 Reports from the QC Specialist(s)

Reports are required for each day that work is performed in their area of responsibility. QC specialist reports shall include the same documentation requirements as the Contractor Quality Control Report for their area of responsibility. QC specialist reports are to be prepared, signed and dated by the QC specialists and shall be attached to the Contractor Quality Control Report prepared for the same day.

1.15.7 Testing Plan and Log

As tests are performed, the QC Manager shall record on the "Testing Plan and Log" the date the test was conducted, the date the test results were forwarded to the Contracting Officer, remarks and acknowledgement that an accredited or Contracting Officer approved testing laboratory was used. Attach a copy of the updated "Testing Plan and Log" to the last daily Contractor Quality Control Report of each month.

1.15.8 Rework Items List

The QC Manager shall maintain a list of work that does not comply with the Contract, identifying what items need to be reworked, the date the item was originally discovered, the date the item will be corrected by, and the date the item was corrected. There is no requirement to report a rework item that is corrected the same day it is discovered. Attach a copy of the "Rework Items List" to the last daily Contractor Quality Control Report of each month. The Contractor shall be responsible for including on this list items needing rework including those identified by the Contracting Officer.

1.15.9 As-Built Drawings

The QC Manager is required to ensure the as-built drawings, required by Section 01770N "Closeout Procedures," are kept current on a daily basis and marked to show deviations which have been made from the Contract drawings. Ensure each deviation has been identified with the appropriate modifying documentation (e.g. PC No., Modification No., Request for Information No., etc.). The QC Manager or QC specialist assigned to an area of responsibility shall initial each deviation and each revision. Upon completion of work, the QC Manager shall furnish a certificate attesting to the accuracy of the as-built drawings prior to submission to the Contracting Officer.

1.15.10 Report Forms

The following forms, are acceptable for providing the information required by the paragraph entitled "Documentation." While use of these specific formats are not required, any other format used shall contain the same information:

- a. Contractor Quality Control Report w/ continuation sheet(s).
- b. Contractor Production Report w/ continuation sheet(s).
- c. Preparatory Phase Checklist.
- d. Initial Phase Checklist.
- e. Testing Plan and Log.
- f. Rework Items List.

1.16 NOTIFICATION ON NON-COMPLIANCE

The Contracting Officer will notify the Contractor of any detected non-compliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time for excess costs or damages by the Contractor.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

[illegible]

CONTRACTOR QUALITY CONTROL REPORT				DATE	
(ATTACH ADDITIONAL SHEETS IF NECESSARY)				REPORT NO	
PHASE	CONTRACT NO		CONTRACT TITLE		
PREPARATORY	WAS PREPARATORY PHASE WORK PERFORMED TODAY? YES <input type="checkbox"/> NO <input type="checkbox"/>				
	IF YES, FILL OUT AND ATTACH SUPPLEMENTAL PREPARATORY PHASE CHECKLIST.				
	Schedule Activity No.	Definable Feature of Work			Index #
INITIAL	WAS INITIAL PHASE WORK PERFORMED TODAY? YES <input type="checkbox"/> NO <input type="checkbox"/>				
	IF YES, FILL OUT AND ATTACH SUPPLEMENTAL INITIAL PHASE CHECKLIST.				
	Schedule Activity No.	Definable Feature of Work			Index #
FOLLOW-UP	WORK COMPLIES WITH CONTRACT AS APPROVED DURING INITIAL PHASE? YES <input type="checkbox"/> NO <input type="checkbox"/>				
	WORK COMPLIES WITH SAFETY REQUIREMENTS? YES <input type="checkbox"/> NO <input type="checkbox"/>				
	Schedule Activity No.	Description of Work, Testing Performed & By Whom, Definable Feature of Work, Specification Section, Location and List of Personnel Present			
REWORK ITEMS IDENTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS)		REWORK ITEMS CORRECTED TODAY (FROM REWORK ITEMS LIST)			
Schedule Activity No.	Description	Schedule Activity No.	Description		
REMARKS (Also Explain Any Follow-Up Phase Checklist Item From Above That Was Answered "NO", Manuf. Rep On-Site, etc.)					
Schedule Activity No.	Description				
<small>On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.</small>					
AUTHORIZED QC MANAGER AT SITE				DATE	
GOVERNMENT QUALITY ASSURANCE REPORT				DATE	
QUALITY ASSURANCE REPRESENTATIVE'S REMARKS AND/OR EXCEPTIONS TO THE REPORT					
GOVERNMENT QUALITY ASSURANCE MANAGER				DATE	

PREPARATORY PHASE CHECKLIST (CONTINUED ON SECOND PAGE)		SPEC SECTION	DATE
CONTRACT NO	DEFINABLE FEATURE OF WORK	SCHEDULE ACT NO.	INDEX #
PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE: YES <input type="checkbox"/> NO <input type="checkbox"/>		
	NAME	POSITION	COMPANY/GOVERNMENT
SUBMITTALS	REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN APPROVED? YES <input type="checkbox"/> NO <input type="checkbox"/> IF NO, WHAT ITEMS HAVE NOT BEEN SUBMITTED? _____		
	ARE ALL MATERIALS ON HAND? YES <input type="checkbox"/> NO <input type="checkbox"/> IF NO, WHAT ITEMS ARE MISSING? _____		
	CHECK APPROVED SUBMITTALS AGAINST DELIVERED MATERIAL. (THIS SHOULD BE DONE AS MATERIAL ARRIVES.) COMMENTS: _____		
MATERIAL STORAGE	ARE MATERIALS STORED PROPERLY? YES <input type="checkbox"/> NO <input type="checkbox"/> IF NO, WHAT ACTION IS TAKEN? _____		
SPECIFICATIONS	REVIEW EACH PARAGRAPH OF SPECIFICATIONS. _____ _____ _____ _____ _____		
PRELIMINARY WORK & PERMITS	ENSURE PRELIMINARY WORK IS CORRECT AND PERMITS ARE ON FILE. IF NOT, WHAT ACTION IS TAKEN? _____		

PREPARATORY PHASE CHECKLIST (CONTINUED FROM FIRST PAGE)		SPEC SECTION	DATE
CONTRACT NO	DEFINABLE FEATURE OF WORK	SCHEDULE ACT NO.	INDEX #
TESTING	IDENTIFY TEST TO BE PERFORMED, FREQUENCY, AND BY WHOM. _____		
	WHEN REQUIRED? _____		
	WHERE REQUIRED? _____		
REVIEW TESTING PLAN. _____			
HAS TEST FACILITIES BEEN APPROVED? _____			
SAFETY	ACTIVITY HAZARD ANALYSIS APPROVED? YES <input type="checkbox"/> NO <input type="checkbox"/>		
	REVIEW APPLICABLE PORTION OF EM 385-1-1.		
MEETING COMMENTS	NAVY/ROICC COMMENTS DURING MEETING.		
OTHER ITEMS OR REMARKS	OTHER ITEMS OR REMARKS:		
QC MANAGER _____ DATE _____			

INITIAL PHASE CHECKLIST		SPEC SECTION	DATE
CONTRACT NO	DEFINABLE FEATURE OF WORK	SCHEDULE ACT NO.	INDEX #
PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE: YES <input type="checkbox"/> NO <input type="checkbox"/>		
	NAME	POSITION	COMPANY/GOVERNMENT
PROCEDURE COMPLIANCE	IDENTIFY FULL COMPLIANCE WITH PROCEDURES IDENTIFIED AT PREPARATORY. COORDINATE PLANS, SPECIFICATIONS, AND SUBMITTALS.		
	COMMENTS: _____		
PRELIMINARY WORK	ENSURE PRELIMINARY WORK IS COMPLETE AND CORRECT. IF NOT, WHAT ACTION IS TAKEN?		
WORKMANSHIP	ESTABLISH LEVEL OF WORKMANSHIP.		
	WHERE IS WORK LOCATED? _____		
	IS SAMPLE PANEL REQUIRED? YES <input type="checkbox"/> NO <input type="checkbox"/>		
WILL THE INITIAL WORK BE CONSIDERED AS A SAMPLE? YES <input type="checkbox"/> NO <input type="checkbox"/>			
(IF YES, MAINTAIN IN PRESENT CONDITION AS LONG AS POSSIBLE AND DESCRIBE LOCATION OF SAMPLE)			
RESOLUTION	RESOLVE ANY DIFFERENCES.		
	COMMENTS: _____		
CHECK SAFETY	REVIEW JOB CONDITIONS USING EM 385-1-1 AND JOB HAZARD ANALYSIS		
	COMMENTS: _____		
OTHER	OTHER ITEMS OR REMARKS		

QC MANAGER _____

DATE _____

REWORK ITEMS LIST

Contract No. and Title: _____

Contractor: _____

[illegible]

SHEET OF

TESTING PLAN AND LOG

[illegible]

SECTION 01525N

SAFETY REQUIREMENTS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A10.14 (1991) Construction and Demolition Operations - Requirements for Safety Belts, Harnesses, Lanyards and Lifelines for Construction and Demolition Use

ANSI Z359.1 (1992) Safety Requirements for Personal Fall Arrest Systems

ASME INTERNATIONAL (ASME)

ASME B30.5 (1994) Mobile Cranes

ASME B30.22 (1993) Articulating Boom Cranes

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910.94 Ventilation

29 CFR 1910.120 Hazardous Waste Operations and Emergency Response

29 CFR 1926.65 Hazardous Waste Operations and Emergency Response

29 CFR 1926.502(f) Warning Line Systems

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (1996) Safety and Health Requirements Manual

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10 (1995) Portable Fire Extinguishers

NFPA 70 (1999) National Electrical Code

NFPA 241 (1996) Safeguarding Construction, Alteration, and Demolition Operations

1.2 DEFINITIONS

a. Certified Industrial Hygienist. An industrial hygienist is an

individual who is certified by the American Board of Industrial Hygiene.

- b. Certified Safety Professional. A safety manager, safety specialist, safety officer, or safety engineer that has passed the CSP exam administered by the Board of Certified Safety Professionals.
- c. Competent Person. A competent person is one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
- d. Confined Space. A space which by design has limited openings for entry and exit, unfavorable natural ventilation which could contain or produce dangerous air contaminants, and which is not intended for continuous employee occupancy. Confined spaces include, but are not limited to storage tanks, process vessels, pits, silos, vats, degreasers, reaction vessels, boilers, ventilation and exhaust ducts, sewers, tunnels, underground utility vaults, and pipelines.
- e. First Aid. First aid is any one-time treatment, and any follow-up visit for the purpose of observation, of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care, even though provided by a physician or registered professional personnel.
- f. Health and Safety Plan (HASP). The HASP is the Navy equivalent Army term of SHP or SSHP used in EM 385-1-1. "USACE" property and equipment specified in EM 385-1-1 should be interpreted as Government property and equipment.
- g. Lost Workdays. The number of days (consecutive or not) after, but not including, the day of injury or illness during which the employee would have worked but could not do so; that is, could not perform all or part of his normal assignment during all or any part of the workday or shift; because of the occupational injury or illness.
- h. Medical Treatment. Medical treatment includes treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.
- i. Multi-employer work site (MEWS). A multi-employer work site, as defined by OSHA, is one in which many employers occupy the same site. The Navy considers the prime contractor to be the "controlling authority" for all work site safety and health of the subcontractors.
- j. Operating Envelope. There is an "operating envelope" around any crane, and inside the envelope are the operator, riggers, rigging gear between the hook and the load, the load and the crane's supporting structure (ground, rail, etc.).
- k. Qualified Person. One who, by possession of a recognized degree,

certificate, or professional standing, or extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve or resolve problems related to the subject matter, the work or the project.

1. Recordable Occupational Injuries or Illnesses. Any occupational injuries or illnesses which result in:
 - (1) Fatalities, regardless of the time between the injury and death, or the length of the illness; or
 - (2) Lost Workday Cases, other than fatalities, that result in lost workdays, or
 - (3) Non-Fatal Cases without lost workdays which result in transfer to another job or termination of employment, or require medical treatment (other than first aid) or involve: loss of consciousness or restriction of work or motion. This category also includes any diagnosed occupational illnesses which are reported to the employer but are not classified as fatalities or lost workday cases.
- m. Safety Officer. The superintendent or other qualified or competent person who is responsible for the on-site safety required for the project. The contractor quality control person cannot be the safety officer, even though the QC has safety inspection responsibilities as part of the QC duties.
- n. Serious Accidents. Any work-related incident, which results in, a fatality, in-patient hospitalization of three or more employees, or property damage in excess of \$200,000.
- o. Significant Accident. Any contractor accident which involves falls of (4 feet) or more, electrical accidents, confined space accidents, diving accidents, equipment accidents, crane accident or fire accidents, which, result in property damage of \$10,000 or more, but less than \$200,000; or when fire department or emergency medical treatment (EMT) assistance is required.
- p. Weight Handling Equipment (WHE) Accident. A WHE accident occurs when any one or more of the six elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; and collision, including unplanned contact between the load, crane, and/or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, roll over, etc.).

1.3 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-07 Certificates

Accident Prevention Plan (APP); G

Activity Hazard Analysis (AHA); G

Health and Safety Plan (HASP); G

SD-11 Closeout Submittals

Daily Confined Space Entry Permit

Submit one copy of each permit attached to each Daily Production Report.

Reports

Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."

Crane Reports

Crane Critical Lift Plan

Certificate of Compliance

1.4 QUALITY ASSURANCE

1.4.1 Qualifications

a. Qualifications of Safety Officer:

(1) Ability to manage the on-site contractor safety program through appropriate management controls.

(2) Ability to identify hazards and have the capability to expend resources necessary to abate the hazards.

(3) Must have worked on similar types of projects that are equal to or exceed the scope of the project assigned with the same responsibilities.

(4) Shall, as a minimum, have attended an OSHA training qualification class including at least 10 hours of classroom instruction.

b. Qualifications of Qualified Person, Confined Space Entry. The qualified person shall be capable (by education and specialized training) of anticipating, recognizing, and evaluating employee exposure to hazardous substances or other unsafe conditions in a confined space. This person shall be capable of specifying necessary control and protective action to ensure worker safety.

c. Qualification of Crane Operators. Crane operators shall meet the requirements in EM 385-1-1, Appendix G.

1.4.2 Meetings

1.4.2.1 Preconstruction Conference

The safety officer shall attend the preconstruction conference.

1.4.2.2 Meeting on Work Procedures

- a. Meet with Contracting Officer to discuss work procedures and safety precautions required by the APP. Ensure the participation of the contractor's superintendent, the quality control, and the CSP or CIH.
- b. Meet with Contracting Officer to discuss work procedures and safety precautions required by the HASP. Ensure the participation of the contractor's superintendent, the quality control, and the CSP or CIH.

1.4.2.3 Weekly Safety Meetings

Hold weekly at the project site. Attach minutes showing contract title, signatures of attendees and a list of topics discussed to the QC Contractor Quality Control daily report.

1.4.2.4 Work Phase Meetings

The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection.

1.4.2.5 New Employee Indoctrination

New employees will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.4.3 Certifications

1.4.3.1 Accident Prevention Plan (APP)

Submit the APP at least 15 calendar days prior to start of work at the job site, following Appendix A of EM 385-1-1. Make the APP site specific. Notice To Proceed will be given after Government finds the APP acceptable.

1.4.3.2 Activity Hazard Analysis (AHA)

Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHA as amendments to the APP. In accordance with contract quality control requirements each AHA will be reviewed during an on-site preparatory inspection.

1.4.3.3 Health and Safety Plan (HASP)

Submit the HASP for projects involving the handling of hazardous materials and allow 30 calendar days for review by Naval Environmental Health Center (NEHC) for health hazard review and Naval Facilities Engineering Command, Engineering Field Division (EFD) or Engineering Field Activity (EFA) construction safety manager. The Contracting Officer will act on the HASP only after 30 day NEHC and EFD/EFA safety manager reviews.

1.4.4 Reports

1.4.4.1 Crane Reports

Submit crane inspection reports required in accordance with EM 385-1-1 and as specified herein with Daily Reports of Inspections.

1.4.4.2 Crane Critical Lift Plan

Submit crane critical lift plan EM 385-1-1 section 16 when crane loads meet or exceed 75 percent of the crane load capacity in any configuration.

1.4.4.3 Certificate of Compliance

The Contractor shall provide a Certificate of Compliance for each crane entering a Naval activity under this contract (see Contracting Officer for a blank certificate). Certificate shall state that the crane and rigging gear meet applicable OSHA regulations (with the contractor citing which OSHA regulations are applicable, e.g., cranes used in construction, demolition, or maintenance shall comply with 29 CFR 1926. Certify on the Certificate of Compliance that the crane operator(s) is qualified and trained in the operation of the crane to be used. The Contractor shall also certify that all of its crane operators working on the Naval activity have been trained not to bypass safety device (e.g., anti-two block devices) during lifting operations. These certifications shall be posted on the crane.

1.5 ACCIDENT PREVENTION PLAN (APP)

Prepare the APP in accordance with the required and advisory provisions of EM 385-1-1 including Appendix A, "Minimum Basic Outline for Preparation of Accident Prevention Plan," and as modified herein. Include the associated AHA and other specific plans, programs and procedures listed on Pages A-3 and A-4 of EM 385-1-1, some of which are listed below.

1.5.1 Contents of the Accident Prevention Plan

- a. Name and safety related qualifications of safety officer (including training and any certifications).
- b. Qualifications of competent and of qualified persons.
- c. Identity of the individual who will complete exposure data (hours worked); accident investigations, reports and logs; and immediate notification of accidents to include subcontractors.
- d. Emergency response plan. Conform to EM 385-1-1, paragraph 01.E and include a map denoting the route to the nearest emergency care facility with emergency phone numbers. Contractor may be required to demonstrate emergency response.
- e. Confined Space Entry Plan. Identify the qualified person's name and qualifications, training, and experience. Delineate the qualified person's authority to direct work stoppage in the event of hazardous conditions. Include procedure for rescue by contractor personnel and the coordination with emergency responders. (If there is no confined space work, include a statement that no confined space work exists and none will be created.)
- f. Hazardous Material Use. Provisions to deal with hazardous

materials, pursuant to the Contract Clause "FAR 52.223-3, Hazardous Material Identification and Material Safety Data." And the following:

- (1) Inventory of hazardous materials to be introduced to the site with estimated quantities.
 - (2) Plan for protecting personnel and property during the transport, storage and use of the materials.
 - (3) Emergency procedures for spill response and disposal, including a site map with approximate quantities on site at any given time. The site map will be attached to the inventory, showing where the hazardous substances are stored.
 - (4) Material Safety Data Sheets for inventoried materials not required in other section of this specification.
 - (5) Labeling system to identify contents on all containers on-site.
 - (6) Plan for communicating high health hazards to employees and adjacent occupants.
- g. Hazardous Energy Control Plan. For hazardous energy sources, comply with EM 385-1-1, paragraph 12.A.07.
- h. Critical Lift Plan. Weight handling critical lift plans shall be prepared and signed in accordance with EM 385-1-1, paragraph 16.c.18.
- i. Alcohol and Drug Abuse Plan
- (1) Describe plan for random checks and testing with pre-employment screening in accordance with the DFAR Clause subpart 252.223-7004, "Drug Free Work Force."
 - (2) Description of the on-site prevention program
- j. Fall Protection and Prevention (FP&P) Plan. The plan shall be site specific and address all fall hazards in the work place. It shall address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 6 feet. A qualified person shall prepare the plan. The plan shall include fall protection and prevention systems, equipment and methods employed, responsibilities, rescue and escape equipment and operations, training requirements, and monitoring methods. FP&P Plan shall be revised for lengthy projects, to reflect any new changes during the course of construction, due to changes of personnel, equipment, systems or work habits.
- k. Silica Exposure Reduction. The plan shall include specific procedures to prevent employee silica inhalation exposures.
- l. Asbestos Abatement Plan. The safety and health aspects prepared in accordance with Section 13281N, "Engineering Control of Asbestos Containing Materials"
- m. Site Demolition Plan. The safety and health aspects prepared in

accordance with Section 02220N, "Site Demolition" and referenced sources. Include engineering survey as applicable.

- n. Training Records and Requirements. List of mandatory training and certifications which are applicable to this project (e.g. explosive actuated tools, confined space entry, fall protection, crane operation, vehicle operator, forklift operators, personal protective equipment); list of requirements for periodic retraining/certification; outline requirements for supervisory and employee safety meetings.
- o. Severe Weather Plan. Procedures of ceasing on-site operations during lightning or upon reaching maximum allowed wind velocities.
- p. Emergency Lighting and Power Systems Plan (e.g. periodic testing of batteries for emergency lighting.)

1.5.2 Hazardous Material Use

Each hazardous material must receive approval prior to bringing onto the job site or prior to any other use in connection with this contract. Allow a minimum of 10 working days for processing of the request for use of a hazardous material. Any work or storage involving hazardous chemicals or materials must be done in a manner that will not expose government employees to any unsafe or unhealthful conditions. Adequate protective measures must be taken to prevent government employees from being exposed to any hazardous condition that could result from the work or storage. Approval by the Contracting Officer of protective measures and storage area is required prior to the start of the work.

1.6 ACTIVITY HAZARD ANALYSIS (AHA)

Prepare for each phase of the work. As a minimum, define activity being performed, sequence of work, specific hazards anticipated, control measures to eliminate or reduce each hazard to acceptable levels, training requirements for all involved, and the competent person in charge of that phase of work. For work with fall hazards, including fall hazards associated with scaffold erection and removal, identify the appropriate fall arrest systems. For work with materials handling equipment, address safeguarding measures related to materials handling equipment. For work requiring excavations, include excavation safeguarding requirements. The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection.

1.7 HEALTH AND SAFETY PLAN (HASP)

Prepare as required by 29 CFR 1910.120 and EM 385-1-1.

1.7.1 Qualified Personnel

Retain a Certified Industrial Hygienist (CIH) or a Certified Safety Professional (CSP) to prepare the HASP, conduct activity hazard analyses, and prepare detailed plan for demolition, removal, and disposal of materials. Retain the CIH or CSP for duration of contract.

1.7.2 Contents

In addition to the requirements of EM 385-1-1, Table 28-1, the HASP must

include:

- a. Location, size, and details of control areas.
- b. Location and details of decontamination systems.
- c. Interface of trades involved in the construction.
- d. Sequencing of work.
- e. Disposal plan.
- f. Sampling protocols.
- g. Testing labs.
- h. Protective equipment.
- i. Pollution control.
- j. Evidence of compliance with 29 CFR 1910.120 and 29 CFR 1926.65.
- k. Training and certifications of CIH, CSP or other competent persons.

1.8 DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employees either use illegal drugs or consume alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine or saliva specimens and test injured employee's influence. A copy of the test shall be made available to the Contracting Officer upon request.

1.9 FALL HAZARD PROTECTION AND PREVENTION PROGRAM

1.9.1 Scaffolds

Delineate the fall protection requirements necessary during the erection and dismantling operation of scaffolds used on the project in the Fall Protection and Prevention (FP&P) plan and activity hazard analysis for the phase of work.

1.9.2 Training

Institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, Contractor shall provide training for each employee who might be exposed to fall hazards.

1.10 DUTIES OF THE SAFETY OFFICER

- a. Ensure construction hazards are identified and corrected.
- b. Maintain applicable safety reference material on the job site.
- c. Maintain a log of safety inspections performed.
- d. Attend the pre-construction conference as required.

- e. Identify hazardous conditions and take corrective action. Failure to do so will result in a dismissal from the site, with a work stoppage pending approval of suitable replacement personnel.

1.11 DISPLAY OF SAFETY INFORMATION

Display the following information in clear view of the on-site construction personnel:

- a. Map denoting the route to the nearest emergency care facility with emergency phone numbers.
- b. AHA
- c. Confined space entry permit.

1.12 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturers' manuals.

1.13 HIGH HAZARD WORK AND LONG DURATION

Work under this contract is potentially hazardous. Pursuant to contract clause "FAR 52.236-13, Accident Prevention, Alternate I," submit in writing additional proposals for effecting accident prevention under hazardous conditions. Meet in conference with Contracting Officer to discuss and develop mutual understanding relative to the administration of the overall safety program.

1.14 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment. However, if emergency medical care is rendered by Navy medical services, charges may be billed to Contractor at prevailing rates established in BUMED Instruction 6320.4 series. Reimbursement shall be made by Contractor to Naval Regional Medical Center Collection Agent upon receipt of monthly statement.

1.15 SITE CONDITIONS

1.16 REPORTS

1.16.1 Accident Reports

- a. For recordable occupational injuries and illnesses, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the Navy Contractor Significant Incident Report (CSIR) form and provide to the Contracting Officer within 5 calendar days of the accident. The Contracting Officer will provide a copy of the CSIR form.
- b. For a weight handling equipment accident the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the WHE Accident Report form and provide to the Contracting Officer within 30 calendar days of the accident. The Contracting Officer will provide a blank copy

of the WHE accident report form.

1.16.2 Notification

Notify the Contracting Officer as soon as practical, but not later than four hours, of any accident meeting the definition of Recordable Occupational Injuries or Illnesses or Significant Accidents. Information shall include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; and brief description of accident (to include type of construction equipment used, PPE used, etc.).

1.16.3 Monthly Exposure Report

Monthly exposure reporting, to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor.

1.16.4 OSHA Citations and Violations

Provide the Contracting Officer with a copy of each OSHA citation, OSHA report and contractor response. Correct violations and citations promptly and provide written corrective actions to the Contracting Officer.

1.16.5 Crane Notification

Notify Contracting Officer at least 15 days prior to bringing any crane equipment on-site so that the contracting officer may arrange for any additional quality assurance spot checks necessary by the government.

1.17 HOT WORK

Prior to performing "Hot Work" (welding, etc.) or operating other flame-producing devices, the Contractor shall request a written permit from the Fire Division. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. The Contractor will provide at least two (2) twenty (20) pound extinguishers for normal "Hot Work". All extinguishers shall be current inspection tagged, approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity.

- a. Oil painting materials (paint, brushes, empty paint cans, etc.), and all flammable liquids shall be removed from the work site at quitting time. All painting materials and flammable liquids shall be stored outside in a suitable metal locker or box and will require re-submittal with non-hazardous materials.
- b. Accumulation of trays, paper, shavings, sawdust, boxes and other packing materials shall be removed from the work site at the close of each workday and such material disposed of in the proper containers located away from the work site.
- c. The storage of combustible supplies shall be a safe distance from structures.
- d. Area outside of work site undergoing work shall be cleaned of trash, paper, or other discarded combustibles at the close of each

workday.

- e. All portable electric devices (saws, sanders, compressors, extension chord, lights, etc.) shall be disconnected at the close of each workday. When possible, the main electric switch in the pier shall be deactivated.
- f. When starting work on the pier, Contractors shall require their personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency Fire Division phone number. ANY FIRE, NO MATTER HOW SMALL, SHALL BE REPORTED TO THE ROICC/BASE FIRE DIVISION IMMEDIATELY.

PART 2 PRODUCTS

2.1 CONFINED SPACE SIGNAGE

Provide permanent signs integral to or securely attached to access covers for new permit required confined spaces. Signs wording: "DANGER--PERMIT REQUIRED CONFINED SPACE - DO NOT ENTER -" on bold letters a minimum of one inch in height and constructed to be clearly legible with all paint removed. The signal word "DANGER" shall be red and readable from 5 feet.

PART 3 EXECUTION

3.1 CONSTRUCTION

Comply with EM 385-1-1, NFPA 241, the accident prevention plan, the activity hazard analysis and other related submittals and activity fire and safety regulations.

3.1.1 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint are prohibited. Exceptions to the use of any of the above excluded materials may be considered by Contracting Officer upon written request by Contractor.

3.1.2 Unforeseen Hazardous Material

The design should have identified materials such as PCB, lead paint, and friable and nonfriable asbestos. If additional material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2 PRE-OUTAGE COORDINATION MEETING

Contractors are required to apply for utility outages a minimum of 15 days

in advance. As a minimum, the request should include the location of the outage, utilities being effected, duration of outage and any necessary sketches. Special requirements for electrical outage requests are contained elsewhere in this specification section. Once approved and prior to beginning work on the utility system requiring shut down, the Contractor shall attend a pre-outage coordination meeting with the Contracting Officer and the Station Utilities Department to review the scope of work and the lock out/tag out procedures for worker protection. No work will be performed on energized electrical equipment unless proven impassable. Working equipment "hot" must be considered the last option.

3.3 PERSONNEL PROTECTION

3.3.1 Hazardous Noise

Provide hazardous noise signs, and hearing protection, wherever equipment and work procedures produce sound-pressure levels greater than 85 dBA steady state or 140 dBA impulse, regardless of the duration of the exposure.

3.3.2 Fall Protection

Enforce use of the fall protection device designated for each specific work activity in the FP&P plan and/or AHA all times when an employee is on a surface 6 feet or more above lower levels. Personal fall arrest systems are required when working from an articulating or extendible boom, scissor lifts, swing stages, or suspended platform. Fall protection must comply with ANSI A10.14.

3.3.2.1 Personal Fall Arrest Device

Personal fall arrest device equipment, systems, subsystems, and components shall meet ANSI Z359.1, "Safety Requirements for Personal Fall Arrest Systems". Only a full-body harness with a shock absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest device. Body belts may only be used as a positioning device system such as steel reinforcing assembly and in conjunction with another fall arrest system. Harnesses shall have a fall arrest attachment, which is a connector, affixed to the body support (usually a D-ring) and specifically designated for attachment to the rest of the system. Only double locking snap hooks and carabiners shall be used. Webbing, straps, and ropes shall be made of synthetic fiber.

3.3.2.2 Fall Protection for Roofing Work

Fall protection controls shall be implemented based on the type of roof being constructed and work being performed. The roof area to be accessed shall be evaluated for its structural integrity including weight-bearing capabilities for the projected loading.

a. Low Sloped Roofs:

(1) For work within 6 feet of an edge, on low-slope roofs, personnel shall be protected from falling by use of personal fall arrest systems, guardrails, or safety nets. Safety monitoring system is not adequate fall protection and is not authorized.

(2) For work greater than 6 feet from an edge, warning lines shall be erected and installed in accordance with 29 CFR 1926.502(f).

- b. Steep Roofs: Work on steep roofs requires personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also includes residential or housing type construction.

3.3.2.3 Safety Nets

If safety nets are used as the selected fall protection system on the project, they shall be provided at unguarded workplaces, over water, machinery, dangerous operations and leading edge work.

3.3.2.4 Existing Anchorage

Existing anchorages, used for attachment of personal fall arrest equipment, if to be used by the Contractor, shall be re-certified by the contractor's fall protection engineer (QP).

3.4 SCAFFOLDING AS REQUIRED

Employees shall be provided with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically designed for access is prohibited. Stair towers or ladders built into scaffold systems in accordance with USACE EM 385-1-1 Appendix J are required for work platforms greater than 20 feet in height. Contractor shall ensure that employees that are qualified perform scaffold erection. Do not use scaffold without the capability of supporting at least four times the maximum intended load or without appropriate fall protection as delineated in the accepted fall protection plan. Minimum platform size shall be based on the platform not being greater in height than three times the dimension of the smallest width dimension for rolling scaffold. Some Baker type scaffolding has been found not to meet these requirements. Stationary scaffolds must be attached to structural components to safeguard against tipping forward or backward. Special care shall be given to ensure scaffold systems are not overloaded. Outrigger brackets used to extend scaffold platforms on self supported scaffold systems for the storage of material is prohibited. The first tie-in shall be at the height equal to 4 times the width of the smallest dimension of the scaffold base.

3.5 EQUIPMENT

3.5.1 Material Handling Equipment

- a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.
- b. The use of hooks on equipment for lifting of material must be in accordance with manufacturers printed instructions.

3.5.2 Weight Handling Equipment

- a. Cranes must be equipped with:
 - (1) Load Indicating Devices (LIDs) and a Boom Angle or Radius Indicator,
 - (2) or Load-Moment Indicating Devices (LMIs).

- (3) Anti-two-block prevention devices.
- (4) Boom Hoist Hydraulic Relief Valve, Disconnect, or Shutoff (stops hoist when boom reaches a predetermined high angle).
- (5) Boom Length Indicator (for telescoping booms).
- (6) Device to prevent uncontrolled lowering of a telescoping hydraulic boom.
- (7) Device to prevent uncontrolled retraction of a telescoping hydraulic boom.
- b. The Contractor shall notify the Contracting Officer, in advance, of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated.
- c. The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person (as defined in ASME B30.5). All testing shall be performed in accordance with the manufacturers recommended procedures.
- d. The Contractor shall comply with ASME B30.5 for mobile cranes, and ASME B30.22 for articulating boom cranes.
- e. The presence of Naval station safety and health inspectors does not relieve the Contractor of an obligation to comply with all applicable safety regulations. The Government will investigate all complaints of unsafe or unhealthful working conditions received in writing from contractor employees, federal civilian employees, or military personnel.
- f. Each load shall be rigged/attached independently to the hook/master-link in such a fashion that the load cannot slide or otherwise become detached. Christmas-tree lifting (multiple rigged materials) is not allowed.
- g. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of ASME B30.5 or ASME B30.22 as applicable.
- h. Crane supported work platforms shall only be used in extreme conditions if the Contractor proves that using any other access to the work location would provide a greater hazard to the workers. Personnel shall not be lifted with a live hoist or friction crane.
- i. A fire extinguisher having a minimum rating of 10BC and a minimum nominal capacity of 5lb of extinguishing agent shall be available at all operator stations or cabs of cranes. Portable fire extinguishers shall be inspected, maintained, and recharged as specified in NFPA 10, Standard for Portable Fire Extinguishers.
- j. All employees shall be kept clear of loads about to be lifted and of suspended loads.
- k. A weight handling equipment operator shall not leave his position

at the controls while a load is suspended.

- l. A Contractor Crane Operation Checklist shall be used by the CQC representative during oversight of contractor crane operations (refer to EM 385-1-1 Appendix H and Contracting Officer for copies).
- m. Only contractor crane operators who have met the requirements of 29 CFR 1910.94, 29 CFR 1910.120, 29 CFR 1926.65, 29 CFR 1926.502(f), EM 385-1-1, ASME B30.5, and ASME B30.22 and other local and state requirements shall be authorized to operate the crane.
- n. Cribbing shall be utilized by the Contractor when performing lifts on outriggers.
- o. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.
- p. A physical barricade must be positioned to prevent personnel from entering the tailswing area of the crane.
- q. A substantial and durable rating chart containing legible letters and figures shall be provided with each crane and securely mounted onto the crane cab in a location allowing easy reading by the operator while seated in the control station.
- r. Certification records which include the date of inspection, signature of the person performing the inspection along with the serial number or other identifier of the crane which was inspected. This record will always be available for review by contracting officer personnel.
- s. Written reports listing the load test procedures utilized along with any repairs or alterations performed on the crane will be available for review by the contracting officer personnel.
- t. Contractor shall certify that all of the crane operators have been trained not to bypass safety devices (e.g. anti-two block devices) during lifting operations.

3.6 Excavations

The competent person for excavation performed as a result of contract work shall be on-site when work is being performed in excavation, and shall inspect excavations prior to entry by workers. The competent person must evaluate for all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly. Prior to digging the appropriate digging permit must be obtained. All underground utilities in the work area must be positively identified by a utility locating service and coordinated with Station Utility Departments. The Contractor must physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within three feet of the underground system. If construction is parallel to an existing utility the utility shall be exposed by hand digging every 30 m (100 feet) if parallel within 5 feet of the excavation. Trench and shoring systems must be identified in the accepted safety plan and activity hazard analysis. Extreme care must be used when excavating near direct burial electric underground cables. Trenching machines with digging chain drives

shall be operated only when the spotters/laborers are in plain view of the operator. Operator and spotters/laborers shall be provided training on the hazards of the digging chain drives with emphasis on the distance that needs to be maintained when the digging chain is operating. Documentation of the training shall be kept on file in the project site office or trailer.

3.7 ELECTRICAL

3.7.1 Conduct of Electrical Work

Underground electrical spaces must be certified safe for entry before entering to conduct work. Cable intended to be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with the Contracting Officer and Station Utilities for identification. The Contracting Officer will not accept an outage request until the Contractor satisfactorily documents that the circuits have been clearly identified. Perform all high voltage cutting remotely. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers shall be permitted to enter. When work requires Contractor to work near energized circuits as defined by the NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. Insulating blankets, hearing protection, and switching suits may be required, depending on the specific job and as delineated in the Contractor AHA.

3.7.2 Portable Extension Cords

Portable extension cords shall be sized in accordance with manufacturer ratings for the tool to be powered.

3.8 WORK IN CONFINED SPACES

Comply with the requirements in Section 06.I of EM 385-1-1. Any potential for a hazard in the confined space requires a permit system to be used.

- a. Entry Procedures. Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and that all potential hazards are controlled or eliminated and documented. (See Section 06.I.05 of EM 385-1-1 for entry procedures.) All hazards pertaining to the space shall be reviewed with each employee during review of the AHA.
- b. Forced air ventilation is required for all confined space entry operations and the minimum air exchange requirements must be maintained.
- c. Ensure the use of rescue and retrieval devices in confined spaces greater than 5 feet in depth. Conform to Sections 06.I.09, 06.I.10 and 06.I.11 of EM 385-1-1.

- d. Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.
- e. Include training information for employees who will be involved as entrant attendants for the work. Conform to Section 06.I.06 of EM 385-1-1.
- f. Entry Permit. Use ENGFORM 5044-R or other form with the same minimum information for the Daily Confined Space Entry Permit, completed by the qualified person. Post the permit in a conspicuous place close to the confined space entrance.

3.9 CRYSTALLINE SILICA

Grinding, abrasive blasting, and foundry operations of construction materials containing crystalline silica, shall comply with OSHA regulations, such as 29 CFR 1910.94, and EM 385-1-1, (Appendix C). The Contractor shall develop and implement effective exposure control and elimination procedures to include dust control systems, engineering controls, and establishment of work area boundaries, as well as medical surveillance, training, air monitoring, and personal protective equipment.

3.10 HOUSEKEEPING

3.10.1 Clean-up

All debris in work areas shall be cleaned up daily or more frequently as necessary. Construction debris may be temporarily located in an approved location, however garbage accumulation must be removed each day.

3.10.2 Dust Control

In addition to the dust control measures required elsewhere in the contract documents dry cutting of brick or masonry shall be prohibited. Wet cutting must address control of water run off.

3.11 ACCIDENT SCENE PRESERVATION

For serious accidents, and accidents involving weight handling equipment, ensure the accident site is secured and evidence is protected remaining undisturbed until released by the Contracting Officer.

3.12 FIELD QUALITY CONTROL

3.12.1 Inspections

Include safety inspection as a part of the daily Quality Control inspections required in Section 01450N, "Quality Control".

3.13 FLAMMABLE AND COMBUSTIBLE LIQUID HANDLING AND STORAGE

3.13.1 Safety Gas Containers

Handling of flammable and combustible liquids shall be in safety containers with flame arresters, with not more than 5 gallons capacity, having a spring-closing lid and spout cover and designed to safely relieve internal pressures under fire exposures. Flammable and combustible Liquids shall be stored in separate NFPA approved storage cabinets 50 feet away from any

sources of ignition with suitable NO SMOKING OR OPEN FLAME signs posted in all such areas.

-- End of Section --

SECTION 02461

WOOD MARINE PILES

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 25 (1991) Round Timber Piles

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)

AWPA C1 (1996) All Timber Products - Preservative Treatment by Pressure Processes

AWPA C3 (1995) Piles, Pressure Treatment

AWPA M4 (1996) Care of Preservative-Treated Wood Products

AWPA M6 (1996) Brands Used on Forest Products

1.2 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-03 Product Data

Piles

Hammer

Driving equipment

Driving helmet

Pile caps

SD-07 Certificates

MSDS and CIS

SD-11 Closeout Submittals

Job piles records

Submit pile driving records within 15 calendar days after completion of driving.

1.3 QUALITY ASSURANCE

1.3.1 Timber Piles Preservative Treatment

The Contractor shall be responsible for the quality of treated wood products. The Contractor shall provide the Contracting Officer's Representative (COR) with the inspection report of an independent inspection agency, approved by the Contracting Officer, that offered products comply with applicable AWPAs standards. Identify treatment on each piece by the quality mark of an agency accredited by the Board of Review of the American Lumber Standard Committee. Inspect all preservative-treated wood visually to ensure there are no excessive residual materials or preservative deposits. Materials shall be clean and dry or it will be rejected because of environmental concerns.

1.3.2 MSDS and CIS

Provide Materials and Safety Data Sheets (MSDS) and Consumer Information Sheets (CIS) associated with timber pile preservative treatment. Contractor shall comply with all safety precautions indicated on MSDS and CIS.

1.4 DELIVERY, STORAGE, AND HANDLING

Store piles in accordance with AWPAs M4. Comply with paragraph entitled "MSDS and CIS."

1.5 BASIS OF BIDS

1.5.1 For Bearing Piles

Base bids on the number, circumference, and length of piles from tip to cutoff as indicated. (2) of the (35) job piles shall be used as test piles to ensure adequate lengths and bearing capacity. From the data obtained as a result of driving the test piles specified herein, the Government will determine and list for the Contractor the calculated minimum pile tip elevations, the driving resistance for piles, or both. The information will be given to the Contractor no later than 10 days after receipt of complete test pile data. The list shall be used as the basis for ordering piles. The Contractor shall not order the remaining (33) job piles prior to receipt of the above information from the Government. Should the lengths or total number of piles vary from that specified as the basis for bidding, the contract price will be adjusted in accordance with Contract Clause entitled "Changes." Adjustment in contract price will not be made for cutting off piles, for any portion of a pile remaining above the cutoff elevation, or for broken, damaged, or rejected piles.

PART 2 PRODUCTS

2.1 PILES

Provide Douglas fir or Southern pine clean-peeled piles conforming to ASTM D 25. Piles shall be in one piece. Splices will not be permitted. Each treated pile shall be branded by the producer, in accordance with AWPAs M6. Pile circumferences shall be as follows:

- a. Bearing Piles: Minimum butt circumference measured at 3 feet from the butt end shall be 41 inches.

2.2 PRESERVATIVE TREATMENT

Treat piles by the full-cell pressure process in accordance with AWPAC1 and AWPAC3 for marine piling, as follows:

- a. Bearing Piles: Dual treatment of creosote plus waterborne preservative for marine piles.

2.3 SOURCE QUALITY CONTROL

2.3.1 Plant Inspection

The Contracting Officer reserves the right to perform plant inspection of the treating process. Provide the Contracting Officer with a minimum 3-week advance notice, indicating location of the initial preservative treatment. Allow the Contracting Officer unlimited access to the plant and inspection privileges for each facet of the treating process.

PART 3 EXECUTION

3.1 INSTALLATION

3.1.1 Bearing Piles

Inspect piles when delivered and when in the leads immediately before driving. Cut piles at cutoff grade with pneumatic tools by sawing or other approved method. Where cutoff is below existing mudline elevation, complete excavation, sheeting, dewatering, and backfilling before pile is driven to cutoff elevation. Where required, provide bolt holes that will ensure a driving fit and counter-bore holes for the bolt head and washers.

3.1.1.1 Test Piles

The (2) piles used as test piles shall conform to requirements for job piles. Drive test piles in the same manner as specified for job piles. Drive test piles two of the locations identified for the job piles unless directed otherwise by the Contracting Officer. Record driving data as specified in paragraph entitled "Records."

3.1.1.2 Driving Piles

Operate hammer at manufacturer's rated speed, and drive pile without interruption to the indicated tip elevation. Drive piles with same hammer, cushion, or cap block, and using the same operating conditions as test piles. If, in driving, it is found that a pile is not of sufficient length to give the capacity specified, notify the Contracting Officer, who will determine the corrective procedure to be followed.

3.1.1.3 Driving Equipment

Select and use a pile hammer of sufficient weight and energy to install the specified pile without damage into the soils expected to be encountered. Place driving helmet, or cap and cushion block combination capable of protecting the head of the pile between top of pile and the ram to prevent impact damage to pile. If block is damaged, split, highly compressed, charred or burned, or has become spongy or deteriorated, replace with new block. Helmet or block shall uniformly transmit energy to pile with a minimum loss of energy.

3.1.1.4 Tolerances in Driving Bearing Piles

At cutoff elevation, butts shall be within 2 inches of the location indicated. Manipulation to move piles into position will be permitted only within the aforementioned tolerance to return the pile to the design location. A variation of not more than 0.25 inch per foot of pile length from the vertical for plumb piles or more than 0.50 inch per foot of pile length from the required angle for batter piles will be permitted. Redesign of pile caps or additional work required due to improper location of piles will be the responsibility of the Contractor. Inspect piles for heave. Redrive heaved piles to the required tip elevation. Remove and replace with new piles those damaged, misplaced, driven below the design cutoff, or driven out of alignment, or provide additional piles, driven as directed.

3.1.1.5 Records

Keep a complete and accurate record of each pile driven. Indicate pile location, deviations from design location, diameter, original length, mudline elevation, tip elevation, cutoff elevation, penetration in blows per foot for entire length of penetration for test piles, penetration in blows per foot for the last 10 feet for production piles, hammer data including rate of operation, make, and size, and unusual pile behavior or circumstances experienced during driving such as re-driving, heaving, weaving, obstructions, predrilling, and unanticipated interruptions. Preprinted forms for recording pile driving data are attached below. Make pile driving records available to the Contracting Officer at the job site, a minimum of 24 hours after each day of pile driving. Include in the construction records the wood species, preservative type, retention, and producer of installed treated timber.

PILE DRIVING LOG

CONTRACT NO. _____ CONTRACT NAME _____
 CONTRACTOR _____ TYPE OF PILE _____
 PILE LOCATION _____ PILE SIZE: BUTT/TIP: _____ LENGTH _____
 GROUND ELEVATION _____ CUT OFF ELEVATION _____
 PILE TIP ELEVATION _____ VERTICAL (_____) BATTER 1 ON (_____)
 SPLICES ELEVATION _____ COMPANY _____

HAMMER: MAKE & MODEL _____ WT. RAM _____
 STROKE _____ RAM RATED ENERGY _____
 DESCRIPTION & DIMENSIONS OF DRIVING CAP _____
 CUSHION MATERIALS & THICKNESS _____

INSPECTOR _____

"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:

_____ CUT-OFF ELEVATION
 _____ FINISH FLOOR ELEVATION

TIME: START DRIVING _____ FINISH DRIVING _____ DRIVING TIME _____
 INTERRUPTIONS (TIME, TIP ELEV. & REASON) _____
 JET PRESSURE & ELEVATIONS _____

DRIVING RESISTANCE

DEPTH FT.	NO. OF BLOWS	DEPTH FT.	NO. OF BLOWS	DEPTH FT.	NO. OF BLOWS
0	_____	18	_____	36	_____
1	_____	19	_____	37	_____
2	_____	20	_____	38	_____
3	_____	21	_____	39	_____
4	_____	22	_____	40	_____
5	_____	23	_____	41	_____
6	_____	24	_____	42	_____
7	_____	25	_____	43	_____
8	_____	26	_____	44	_____
9	_____	27	_____	45	_____
10	_____	28	_____	46	_____
11	_____	29	_____	47	_____
12	_____	30	_____	48	_____
13	_____	31	_____	49	_____
14	_____	32	_____	50	_____
15	_____	33	_____	51	_____
16	_____	34	_____	52	_____
17	_____	35	_____	53	_____

SHEET 1 OF 2

PILE DRIVING LOG

54	_____	77	_____	99	_____
55	_____	78	_____	100	_____
56	_____	79	_____	101	_____
57	_____	80	_____	102	_____
58	_____	81	_____	103	_____
59	_____	82	_____	104	_____
60	_____	83	_____	105	_____
61	_____	84	_____	106	_____
62	_____	85	_____	107	_____
63	_____	86	_____	108	_____
64	_____	87	_____	109	_____
65	_____	88	_____	110	_____
66	_____	89	_____	111	_____
67	_____	90	_____	112	_____
68	_____	91	_____	113	_____
69	_____	92	_____	114	_____
70	_____	93	_____	115	_____
71	_____	94	_____	116	_____
72	_____	95	_____	117	_____
73	_____	96	_____	118	_____
74	_____	97	_____	119	_____
75	_____	98	_____	120	_____
76	_____				

DRIVING RESISTANCE IN BLOWS PER INCH FOR LAST FOOT OF PENETRATION:

DEPTH_____ DEPTH_____

1"____2"____3"____4"____5"____6"____7"____8"____9"____10"____11"____12"____

ELEV._____ ELEV._____

REMARKS_____

CUT OFF ELEVATION: FROM DRAWING _____

TIP ELEVATION = GROUND ELEVATION - DRIVEN DEPTH = _____

DRIVEN LENGTH = CUT OFF ELEVATION - TIP ELEVATION = _____

CUT OFF LENGTH = PILE LENGTH - DRIVEN LENGTH = _____

SHEET 2 OF 2

3.1.1.6 Survey Data

After the driving of each pile group is complete and before pile cap is placed, provide the Contracting Officer with an as-driven survey showing actual location and top elevation of each pile. The Contractor shall not proceed with placing pile caps until the Contracting Officer has reviewed the survey and verified the safe load for the pile group driven. A survey shall be presented in such form that it gives deviation from plan location in two perpendicular directions and elevations of each pile to nearest half inch. Survey shall be prepared and certified by a licensed land surveyor.

3.2 JETTING OF PILES

Water jets shall not be permitted.

3.3 PREDRILLING

Predrilling shall be provided. Discontinue predrilling when pile tip is approximately 5 feet above the indicated pile tip elevation. Drive pile the final 5 feet of penetration.

3.4 PROTECTION OF PILES

Square the heads and tips of piles to the driving axis. Laterally support piles during driving, but do not unduly restrain piles from rotation in the leads. Swinging leads will not be permitted. Where pile orientation is essential, take precautionary measures to maintain the orientation during driving. Driven batter piles of sufficient unsupported lengths to cause a measurable deflection shall have free ends secured until piles are fixed in the structure to prevent excessive bending stresses. Handle, protect, and field treat piles in accordance with AWWA M4.

3.5 FIELD QUALITY CONTROL

3.5.1 Inspections

When Government inspections result in product rejection, the Contractor shall promptly segregate and remove rejected material from the premises. The Government may also charge the Contractor an additional cost of inspection or test when prior rejection makes reinspection or retest necessary.

-- End of Section --

SECTION 02510N

WATER DISTRIBUTION

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN WATER WORKS ASSOCIATION (AWWA)

AWWA C104	(1990) Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water
AWWA C110	(1993) Ductile-Iron and Gray-Iron Fittings, 3 in. Through 48 in. (75 mm Through 1200 mm), for Water and Other Liquids
AWWA C111	(1990; Erratum 1991) Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings
AWWA C151	(1991) Ductile-Iron Pipe, Centrifugally Cast, for Water or Other Liquids
AWWA C600	(1993) Installation of Ductile-Iron Water Mains and Their Appurtenances
AWWA C651	(1992) Disinfecting Water Mains

1.2 DESIGN REQUIREMENTS

1.2.1 Water Distribution Mains

Provide water main accessories as specified and where indicated.

1.2.2 Water Service Lines

Provide capping of water service lines as indicated.

1.3 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-03 Product Data

Piping Materials G

Water service line piping, fittings, joints, valves, and coupling G

1.4 DELIVERY, STORAGE, AND HANDLING

1.4.1 Delivery and Storage

Inspect materials delivered to site for damage. Unload and store with minimum handling. Store materials on site in enclosures or under protective covering. Do not store materials directly on the ground. Keep inside of pipes and fittings free of dirt and debris.

1.4.2 Handling

Handle pipe, fittings, valves, hydrants, and other accessories in a manner to ensure delivery to the trench in sound undamaged condition. Take special care to avoid injury to coatings and linings on pipe and fittings; make satisfactory repairs if coatings or linings are damaged. Carry, do not drag pipe to the trench.

PART 2 PRODUCTS

2.1 WATER DISTRIBUTION MAIN MATERIALS

2.1.1 Piping Materials

2.1.1.1 Ductile-Iron Piping

- a. Pipe and Fittings: Pipe, AWWA C151, Pressure Class 350 and Fittings, AWWA C110 or AWWA C153. Fittings shall have pressure rating at least equivalent to that of the pipe. Ends of pipe and fittings shall be suitable for the specified joints. Pipe and fittings shall have cement-mortar lining, AWWA C104, standard thickness.
- b. Joints and Jointing Material:
 - (1) Joints: Joints for pipe and fittings shall be mechanical joints unless otherwise indicated. Provide mechanically coupled type joints using a sleeve-type mechanical coupling where indicated.
 - (2) Mechanical Joints: Dimensional and material requirements for pipe ends, glands, bolts and nuts, and gaskets, AWWA C111.
 - (3) Sleeve-Type Mechanical Coupled Joints: As specified in paragraph entitled "Sleeve-Type Mechanical Couplings."

PART 3 EXECUTION

3.1 INSTALLATION OF PIPELINES

3.1.1 General Requirements for Installation of Pipelines

These requirements shall apply to all pipeline installation except where specific exception is made in the "Special Requirements..." paragraphs.

3.1.1.1 Pipe Laying and Jointing

Remove fins and burrs from pipe and fittings. Before placing in position, clean pipe, fittings, valves, and accessories, and maintain in a clean condition. Do not under any circumstances drop or dump pipe, fittings, valves, or any other water line material into trenches. Cut pipe

accurately to length established at the site and work into place without springing or forcing. Replace by one of the proper length any pipe or fitting that does not allow sufficient space for proper installation of jointing material. Blocking or wedging between bells and spigots will not be permitted. Lay bell-and-spigot pipe with the bell end pointing in the direction of laying. Grade the pipeline in straight lines; avoid the formation of dips and low points. Support pipe at proper elevation and grade. Secure firm, uniform support. Wood support blocking will not be permitted. Lay pipe so that the full length of each section of pipe and each fitting will rest solidly on the pipe bedding; excavate recesses to accommodate bells, joints, and couplings. Provide anchors and supports where necessary for fastening work into place. Make proper provision for expansion and contraction of pipelines. Keep trenches free of water until joints have been properly made. At the end of each work day, close open ends of pipe temporarily with wood blocks or bulkheads. Do not lay pipe when conditions of trench or weather prevent installation.

3.1.1.2 Connections to Existing Water Lines

Make connections to existing water lines after approval is obtained and with a minimum interruption of service on the existing line. Make connections to existing lines as indicated.

3.1.2 Special Requirements for Installation of Water Mains

3.1.2.1 Installation of Ductile-Iron Piping

Unless otherwise specified, install pipe and fittings in accordance with paragraph entitled "General Requirements for Installation of Pipelines" and with the requirements of AWWA C600 for pipe installation, joint assembly, valve-and-fitting installation, and thrust restraint.

- a. Jointing: Make mechanical joints with the gaskets, glands, bolts, and nuts specified for this type joint; assemble in accordance with the applicable requirements of AWWA C600 for joint assembly and the recommendations of Appendix A to AWWA C111. Assemble joints made with sleeve-type mechanical couplings in accordance with the recommendations of the coupling manufacturer.

3.1.3 Disinfection

Disinfect new water piping and existing water piping affected by Contractor's operations in accordance with AWWA C651. Fill piping systems with solution containing minimum of 50 parts per million of available chlorine and allow solution to stand for minimum of 24 hours. Flush solution from the systems with domestic water until maximum residual chlorine content is within the range of 0.2 and 0.5 parts per million, or the residual chlorine content of domestic water supply. Obtain at least two consecutive satisfactory bacteriological samples from new water piping, analyze by a certified laboratory, and submit the results prior to the new water piping being placed into service. Disinfection of systems supplying nonpotable water is not required.

3.2 FIELD QUALITY CONTROL

3.2.1 Field Tests and Inspections

The Contracting Officer will conduct field inspections and witness field tests specified in this section. The Contractor shall perform field tests,

and provide labor, equipment, and incidentals required for testing. The Contractor shall produce evidence, when required, that any item of work has been constructed in accordance with the drawings and specifications.

3.2.2 Testing Procedure

Test caps in accordance with the applicable specified standards. No leakage will be allowed at capped locations.

-- End of Section --

SECTION 02552N

EXTERIOR SHALLOW TRENCH STEAM DISTRIBUTION

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

ASME INTERNATIONAL (ASME)

ASME B16.9 (1993) Factory-Made Wrought Steel
Buttwelding Fittings

ASME B31.1 (1996) Power Piping, with Amendments

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 53 (1996) Pipe, Steel, Black and Hot-Dipped,
Zinc-Coated Welded and Seamless

ASTM A 106 (1997; Rev. A) Seamless Carbon Steel Pipe
for High-Temperature Service

1.2 SYSTEM DESCRIPTION

Provide cap of existing exterior steam piping system of shallow concrete trench type, complete and ready for operation. Design pressure and temperature ratings of system components shall be for working pressure of 150 psig steam at 366 degrees F.

1.3 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-02 Shop Drawings

Piping system; G

SD-03 Product Data

Pipe G

SD-07 Certificates

Certification of welder's qualifications G

1.4 QUALITY ASSURANCE

1.4.1 Certification of Welder's Qualifications

Submit prior to site welding. Certification shall not be more than one

year old.

PART 2 PRODUCTS

2.1 PIPE

2.1.1 Steam Pipe

- a. ASTM A 53: Type E (electric-resistance welded, Grade A or B) or Type S (seamless, Grade A or B), black steel. Provide Weight Class STD (Standard) for welding end connections. Provide Weight Class XS (Extra Strong) for threaded end connections.
- b. ASTM A 106: Grade A or B, black steel, Schedule No. 40 for pipe sizes through 10 inches, and minimum pipe wall thickness of 0.375 inch for pipe sizes 12 inches and larger for welding end connections. Provide Schedule No. 80 for threaded end connections.

2.2 FITTINGS

2.2.1 Buttwelding Fittings

ASME B16.9. Provide same material and weight as piping in which fittings are installed. Backing rings shall conform to ASME B31.1 and be compatible with materials being welded.

PART 3 EXECUTION

3.1 INSTALLATION

Installation of exterior heat distribution system including equipment, materials, workmanship, fabrication, assembly, erection, examination, inspection, and testing shall be in accordance with ASME B31.1, except as modified herein. Install piping straight and true to bear evenly on supports and sand bedding material. Install valves with stems horizontal or above centerline of pipe. Provide flanges or unions at valves, traps, strainers, connections to equipment, and as indicated.

- a. Cleaning of Piping: Keep the interior and ends of new piping and existing piping affected by the Contractor's operations, cleaned of water and foreign matter during installation by using plugs or other approved methods. When work is not in progress, securely close open ends of pipe and fittings to prevent entry of water and foreign matter. Inspect piping before placing into position.
- b. Demolition: Remove materials so as not to damage materials which are to remain. Replace existing work damaged by the Contractor's operations with new work of the same construction.

3.2 PIPING

Test, inspect, and approve piping before burying, covering, or concealing. Provide fittings for changes in direction of piping and for connections. Reducing branch connections in steel piping may be made with forged branch outlet reducing fittings for branches two or more pipe sizes smaller than mains. Branch outlet fittings shall be forged, flared for improved flow where attached to pipe, reinforced against external strains, and designed to withstand full pipe bursting strength. Stub type connections will not be permitted. Pipe nipples 6 inches long and shorter shall be Schedule 80

steel pipe.

- a. Fittings and End Connections: For sizes 2.5 inches and larger provide butt welding fittings and end connections.
- b. Welding: ASME B31.1, metallic arc process, including qualification of welders.

3.3 FIELD QUALITY CONTROL

3.3.1 Inspections

Prior to initial operation, inspect piping system for compliance with drawings, specifications, and manufacturer's submittals.

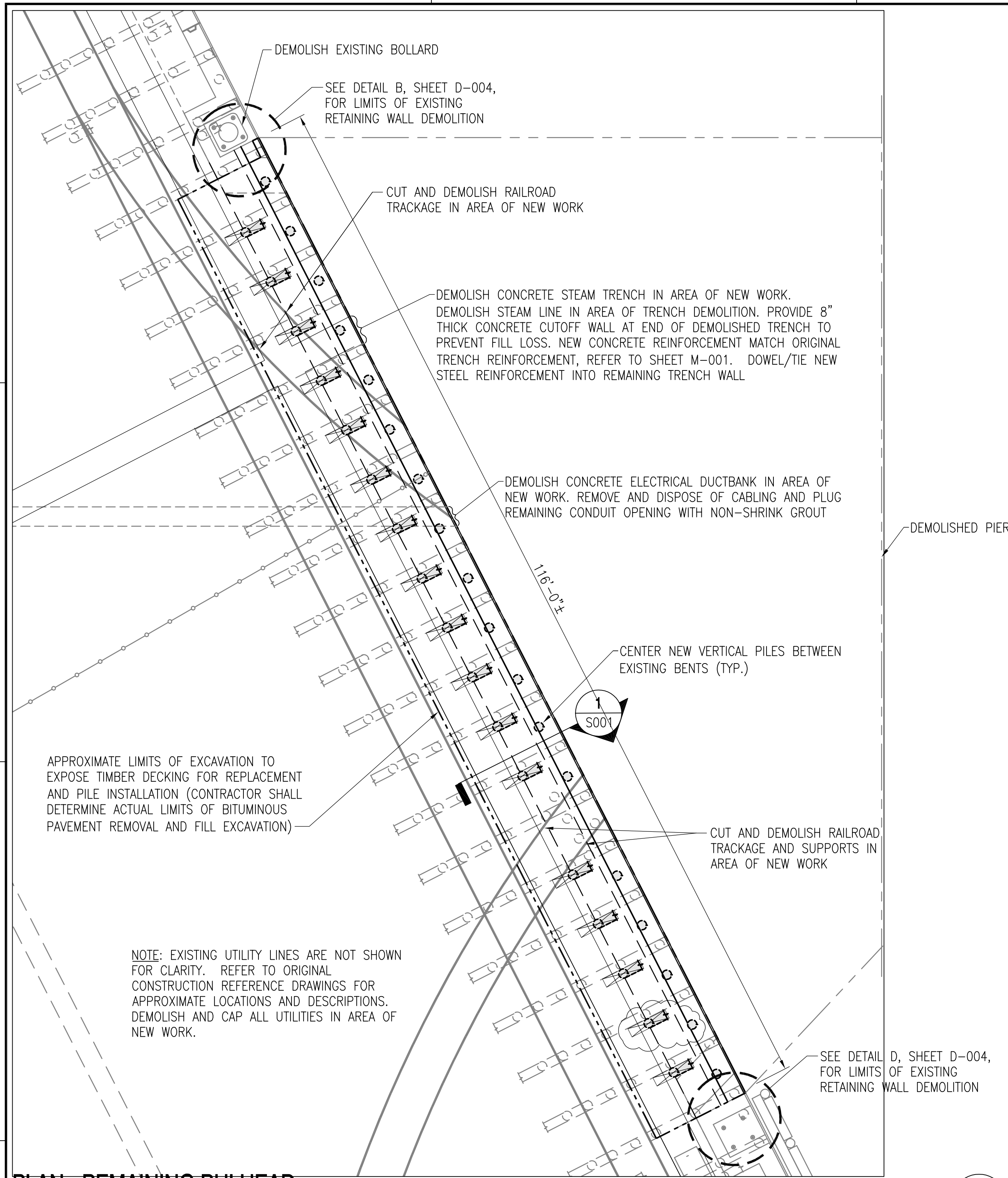
3.3.2 Piping Tests

Before final acceptance of the work, test each system as in service to demonstrate compliance with contract requirements. Before insulation is applied, hydrostatically test each piping system at not less than 225 psig in accordance with ASME B31.1, with no leakage or reduction in gage pressure for 2 hours. Flush and clean piping before placing in operation. Flush piping at a minimum velocity of 8 fps. Correct defects in work provided by Contractor and repeat tests until work is compliance with contract requirements. Furnish potable water, electricity, instruments, connecting devices, and personnel for tests.

3.4 CONNECTIONS TO EXISTING SYSTEMS

Notify Contracting Officer in writing at least 15 days prior to date the connections are required. Obtain approval before interrupting service. Provide materials required to make connections into existing systems, and other incidental labor as required.

-- End of Section --

**LEGEND**

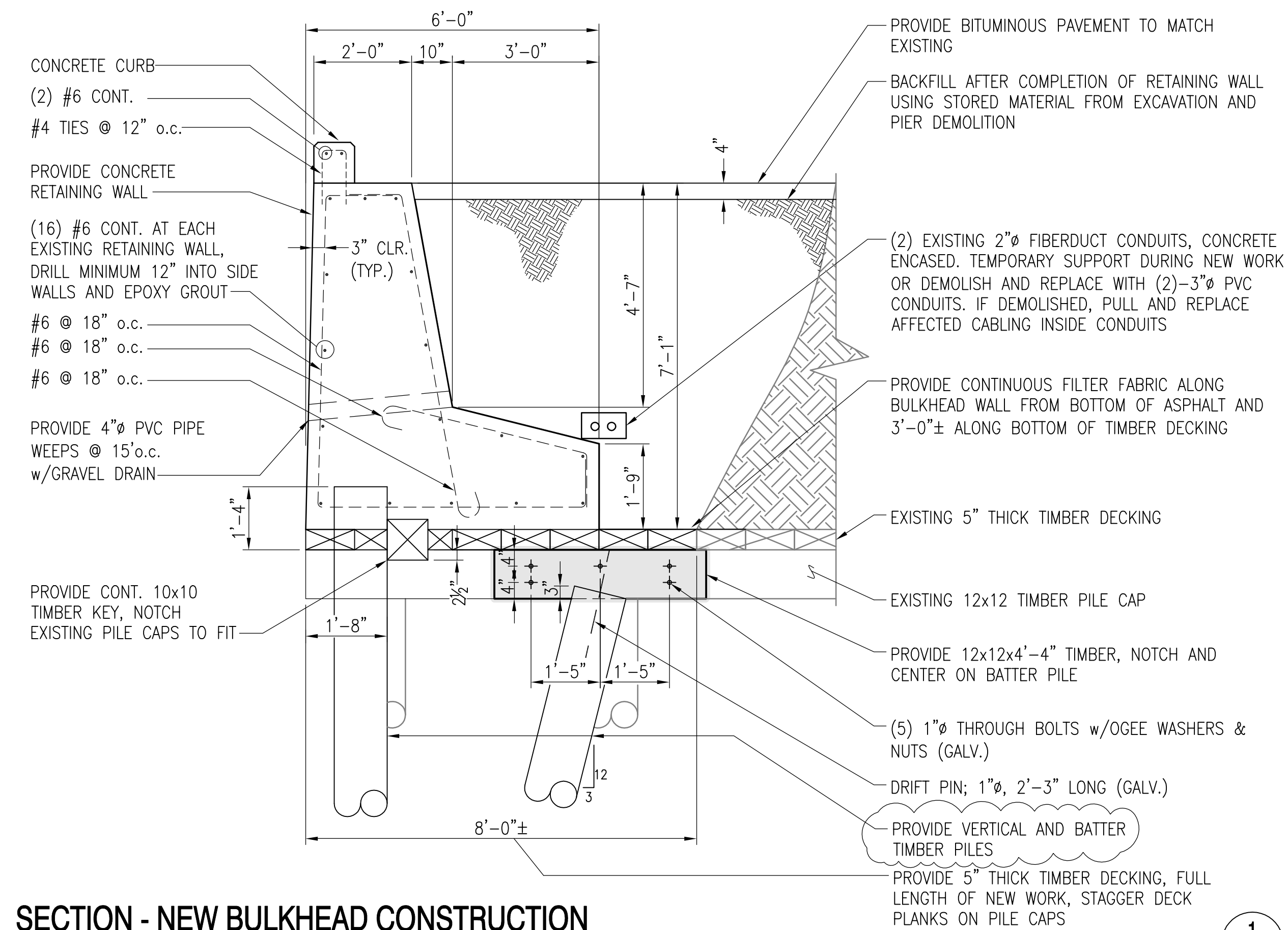
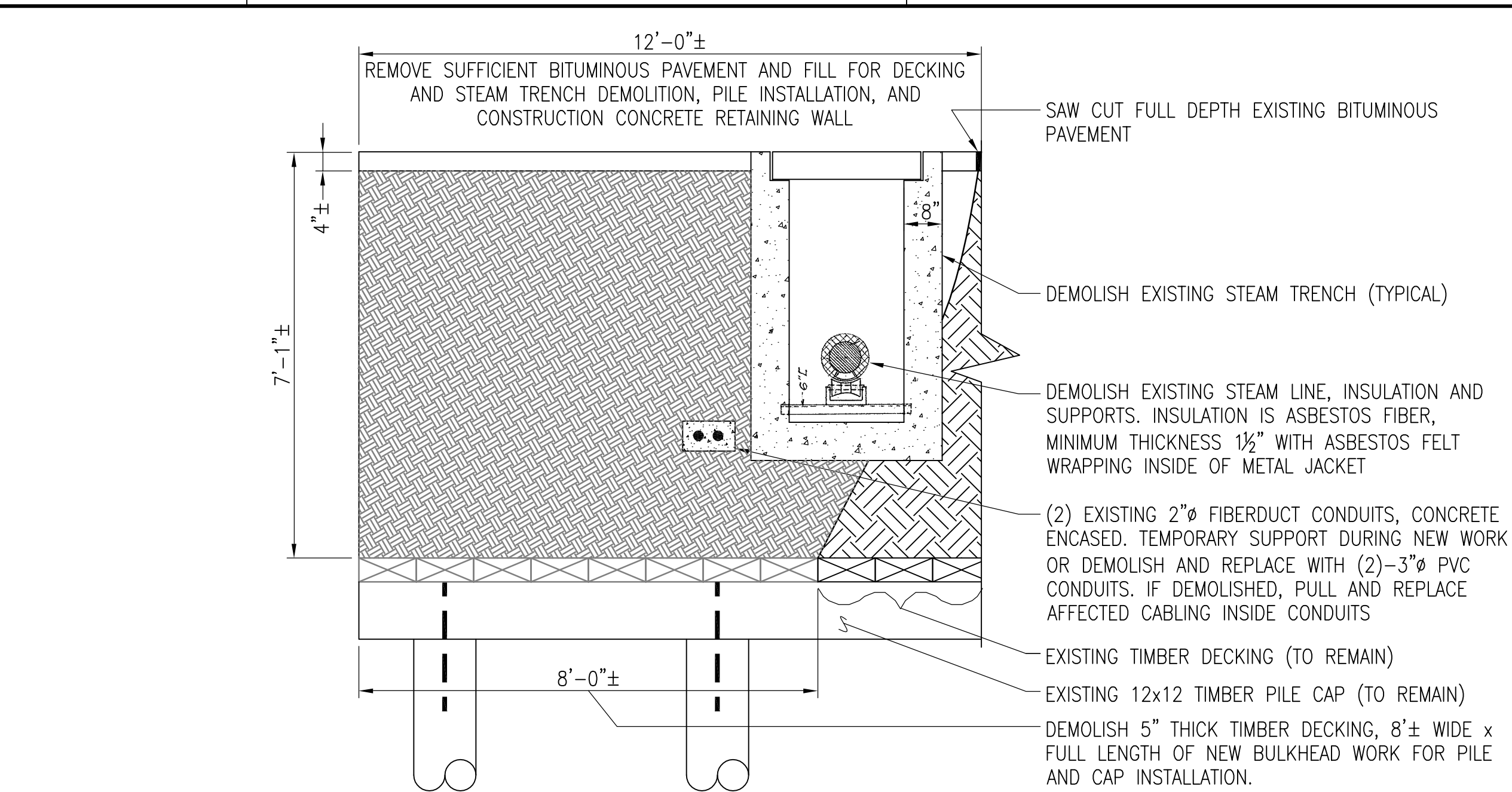
- - PROVIDE NEW VERTICAL BEARING PILE
- ⌵ - PROVIDE NEW BATTER PILE w/TIMBER CAP

NEW CONSTRUCTION

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 318-95. CONCRETE COMPRESSIVE STRENGTH SHALL BE 5,000 PSI AT 28 DAYS. REINFORCING STEEL SHALL BE ASTM A-615, GRADE 60.
- MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE 3 INCHES OR AS OTHERWISE INDICATED.
- DEMOLISHED AREAS SHALL BE INSPECTED AND APPROVED BY THE CONTRACTING OFFICER PRIOR TO BACKFILLING.
- APPLY CONCRETE BONDING COMPOUND TO ALL EXISTING SURFACES TO RECEIVE NEW CONCRETE IMMEDIATELY PRIOR TO CONCRETE PLACEMENT.
- ALL FINISHED CONCRETE AND BITUMINOUS SURFACES SHALL MATCH EXISTING ADJACENT SURFACES.
- ALL EXISTING TIMBERS INDICATED TO BE REPLACED SHALL BE COMPLETELY REMOVED INCLUDING ALL BOLTS AND FASTENINGS AND REMOVED FROM THE SITE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SATISFY THE REQUIREMENTS OF ALL REGULATORY AGENCIES FOR DISPOSING OF ALL DEBRIS.
- ALL NEW BOLTS, NUTS OGEE WASHERS AND OTHER FASTENINGS REQUIRED FOR A COMPLETE INSTALLATION SHALL BE HOT DIPPED GALVANIZED.
- ALL NEW VERTICAL AND BATTER TIMBER PILES SHALL BE 75 FEET LONG. TOTAL NUMBER OF PILES 35.
- ALL NEW TIMBERS SHALL BE DRESSED (S4S). ALL NEW TIMBERS SHALL BE TREATED WITH PRESERVATIVES IN ACCORDANCE WITH THE SPECIFICATIONS.

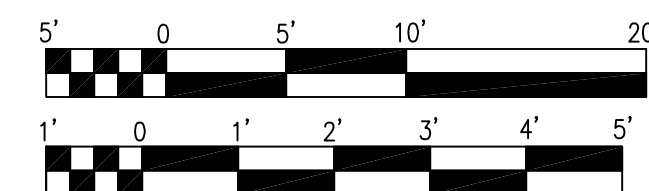


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**GRAPHIC SCALES**

1/8" = 1'-0"

1/2" = 1'-0"



REVISIONS		DATE		APPROVED	
7/03	ELT				

SYMBOL		DESCRIPTION	

APPROVED		SEAL	
ACTIVITY - SATISFACTORY TO			
DATE			
APPROVED			
FOR C.O. COMMANDER, NAVFAC			
11/23/03			
DATE			
A/E		P/W	
DESIGN		ELT	
DRAWN		ELT	
REVIEW			
GC		ARCH/ENGR.	
CHIEF		MATTOON RA	
PROJECT MANAGER			
FIRE PROTECTION		ALLEN PE	
DIVISION DIRECTOR		FIET RA	
DEPARTMENT HEAD			
NAVAL FACILITIES ENGINEERING COMMAND		NORFOLK, VIRGINIA	
NAVY PUBLIC WORKS CENTER		NORFOLK VA	
NAVAL STATION		ST. HELENA	
DEMOLITION OF PIER 12		TYPICAL BULKHEAD REPAIRS	

CODE ID. NO. 80091		SIZE D	
SCALE: AS NOTED			
P/WC DWG. NO. 16,271L			
JOB ORDER NO. 1640304			
SPEC. NO. 05-01-5574			
CONSTR. CONTR. NO. N62470-01-B-5574			
NAVFAC DRAWING NO. 4,427,599			
SHEET 12 OF 12			
S-001			

DRAWING REVISION 27 SEPT 2000